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THE

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HARDY FLOWERING PLANTS;

OR THOSE THAT ARE SOMEWHAT TENDER, BUT MAY STILL BE CULTIVATED IN A WARM BORDER, NEEDING ONLY A MAT, OR A GARDEN POT, PLACED OVER THEM IN SEVERE FROST; SOME WILL EVEN REQUIRE BOTH EXPEDIENTS.

By ROBERT SWEET, F.L.S.

Author of Hortus Suburbanus Londinensis; Hortus Britannicus; Botanical Cultivator Geraniaceæ; Cistineæ; Flora Australasica; the Florist's Guide; the British Warblers, &c.

VOLUME III.

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JAMES RIDGWAY, 169, PICCADILLY.

M.DCCC.XXXV.

June 1908
18338

J Hart del. Pub by J Ridgway Aug 1833 Waddell sc

Schizanthus retusus

SCHÍZANTHUS retùsus.

Blunt-lipped Schizanthus.

Linnean Class and Order. DIANDRIA MONOGYNIA.
Natural Order. SOLANEÆ!

SCHIZANTHUS. Calyx 5-partitus, subæqualis. *Corolla* limbo 4-partita, lobata, irregularis, amorpha, æstivatione plicatâ: *tubo* angusto, abbreviato. *Stamina* 4; 2 *superiora* sterilia, filamentis omninò adnatis. *Antheræ* basi insertæ, biloculares: *loculis* apice confluentibus. *Ovarium* biloculare disco carnoso lævi impositum. *Stigma* compressum, obtusum, lobis connatis. *Capsula* bilocularis, polysperma: *valvulis* bifidis. *Dissepimentum* parallelum. *Placentæ* 2, fungosæ. *Semina* simplici gyro cochleata: *testâ* crustaceâ, tuberculatâ: *albumen* carnosum. *Embryo* arcuatus: *radiculâ* cylindraceâ, obtusâ, cotyledonibus duplò longiori.

Herbæ (Chilenses) *annuæ, glandulosæ.* Folia *bipinnatifida.* Flores *sub-racemosi, colore variegati.*

Obs. Genus Solaneis certè admumerandum, et nullo modo cum Calceolariâ associatum, ut plerique perhibent botanici. Salpiglossidi, ut videtur, confine capsulæ et seminis fabricâ, embryone arcuato, pubescentiâ glandulosâ capitatâ, flore subsimiliter colorato et variegato. *D. Don Mss.*

S. *retusus*, pedunculis fructiferis strictis, corollæ tubo calyce longiori; labii inferioris laciniis lateralibus intermediâ sagittatâ brevioribus; supremâ rhombeo-oblongâ retusâ.

Schizanthus retusus. *Hook. in bot. mag. t.* 3045. *Lindl. in bot. reg. t.* 1544.

The whole herb of a lively green, somewhat glossy, and more sparingly clothed with glandular hairs. *Root* fibrous, annual. *Stem* upright, branched, from 3 to 4 feet high, rarely exceeding the thickness of a goose quill. *Branches* erect, and rather converging. *Leaves* stalked, deeply and interruptedly pinnatifid, almost pinnate, from 3 to 7 inches long, and much like those of the common tansy; the segments are lanceolate, rather blunt; the primary ones inciso-pinnatifid, with an oblique, attenuated, almost stipitate base; but when they are entirely sessile they are furnished with one or two leafy appendages; secondary, or alternate ones shorter, lanceolate, and quite entire; the terminal one pinnatifid, with entire segments. *Rachis* narrow, convex below, flat, and channelled above. *Footstalk* with a broad, concave, adpressed base. *Flowers* large and showy, disposed in loose racemes, terminating the branches. *Peduncles* upright, filiform, an inch long, thickened at the top, and together with the calyx thickly clothed with white spreading hairs, crowned by a dark spherical gland. *Bractes* mostly in pairs, small, unequal, rounded-ovate, entire. *Calyx* deeply parted into 5, strap-shaped, blunt, erect, connivent, nearly equal segments; the 2 innermost ones rather smaller. *Corolla* irregular, slightly clothed with glandular hairs; the tube cylindrical, longer than the calyx, and of a pale violet; limb spreading, deeply parted into 4 segments; the lateral ones broad and flat, of a rich uniform purple lake, doubly two-lobed, the lobes very blunt, unequal and divaricated, lower lip tripartite, of a deep reddish purple; the lateral segments linear, obtuse, straight, shorter than the inter-

mediate one, which is obversely sagittate, conduplicate, hollow, with acuminate lobes; upper lip large, erect, an inch long, of an oblong rhomboid form, with a rather narrow, abruptly obtuse, occasionally emarginate apex; of an orange yellow, marked with oblong, linear, dark brown spots, veiny beneath, the edges revolute, with a cucullate base. *Stamens* 4; the two upper ones sterile, with the filaments attached to the corolla along their whole length; lower pair fertile, with the filaments free, flat, and ciliated at the margin. *Anthers* 2-celled, erect, inserted by their base; the cells confluent at the top, their bases slightly divergent, opening lengthways. *Ovarium* ovate, bilocular, inserted on a smooth fleshy disk. *Style* linear, compressed, truncate at the edges. *Stigma* but little broader, compressed, obtuse; lobes connate, apex with a shallow furrow, often furnished with a drop of viscid juice. *Capsule* oblong, 2-celled, hardly shorter than the calyx, with concave, bifid, cartilaginous valves. *Dissepiment* with the flat side towards the axis of the raceme. *Placentæ* 2, fungous, pitted, attached to the partition. *Seeds* reniform, furrowed, and covered with small tubercles, disposed in lines; the testa crustaceous. *Albumen* fleshy, white *Embryo* curved, white. *Cotyledons* oblong, plano-convex. *Radicle* cylindrical, obtuse, twice the length of the cotyledons.

For the introduction of this very showy annual we are indebted to Dr. Gillies, by whom it was discovered on the Chilian Andes; and from seeds, communicated by him to the late Mr. Barclay, the plant was first raised in the garden at Bury-Hill, in 1831. It is now not uncommon in collections; and, as it ripens its seeds freely, and is of easy culture, we hope, ere long, to see it more generally cultivated, as the beauty of its blossoms cannot fail to render it an universal favourite. Its characters appear to continue unchanged from seed; but whether the plant is to be considered as more than a variety of S. *Grahamii*, I confess I feel incompetent to decide, from the want of sufficient knowledge of the limits prescribed to species in this genus. The tube of the corolla is represented, by Dr. Hooker as only equalling the calyx in length, but in all my specimens it was decidedly longer.

The genus has been noticed by many authors, and all agree in referring it to the *Scrophularinæ*, and in comparing it with *Calceolaria*, with which it appears to have but little affinity. From noticing the similarity of the pubescence, and the variety and arrangement of the colours in the flower, I was first led to compare the genus with *Salpiglossis;* and although the comparison may appear to many paradoxical, I feel confident that those who choose to direct their attention to the subject, will be disposed to admit the accuracy of the view I have taken of its affinities; for except the deeper divided calyx, and more irregular corolla, *Schizanthus* does not differ in any essential point from *Salpiglossis*.

Our drawing was taken from a plant that blossomed last month in the Nursery of Messrs. Allen and Rogers, at Battersea. A light fresh earth, not too rich, will be found to suit it best; and if the plants are to be kept in the Greenhouse, a free admission of air and light is absolutely necessary to preserve them in health and vigour, and to give the flowers their proper tints of colour.

I would wish to direct the attention of some of my readers to the peculiar acid secretion given out by the glandular hairs on the various species of this genus, a fact first pointed out to me by Miss Murray, a young lady of eminent botanical taste and knowledge.

The generic name, which alludes to the laciniated corolla, is compounded of σχιζω, to cut, and ανθος, a flower. *D. Don.*

1. Calyx and Pistil. 2. Corolla, with the Stamens. 3. Capsule. 4. Seed.

J Hart del. Pub by J Ridgway Aug 1833. Weddell sc

Agrostemma pyrenaica

AGROSTÉMMA pyrenàica.

Pyrenean Rose-Campion.

Linnean Class and Order. DECANDRIA PENTAGYNIA.
Natural Order. CARYOPHYLLEÆ. *Juss. gen. p.* 299.
AGROSTEMMA. Calyx tubulosus, 5-dentatus. *Petala* 5, unguiculata, sæpiùs appendiculata. *Styli* 5. *Capsula* 1-locularis, apice 5-valvis. *Torus* abbreviatus.
Herbæ (plerumque perennes et europææ.) Flores *terminales, solitarii v. corymbosi, albi aut rubri.*

A. *pyrenaica*, glabra; foliis radicalibus spathulatis; caulinis sessilibus cordatis, paniculâ pauciflorâ, calycibus clavatis inflatis basi intrusis, petalis emarginatis.
Agrostemma pyrenaica. *G. Don syst. gard. and bot.* 1. *p.* 416.
Lychnis pyrenaica. *Berger. fl. bass. pyren.* 2. *p.* 264. *Dec. fl. fr.* 5. *p.* 608. *Prodr.* 1. *p.* 387.
L. nummularia. *Lapeyr. abr. p.* 263.

Plant small, perennial, very smooth, glaucous and pruinose, occasionally changing to a purple hue. *Stems* many, branched, ascending, 3 inches high, doubly forked; joints rather callous, with the interstices filiform. *Leaves* quite smooth and glaucous, entire, mostly concave, rather thick and coriaceous; radical ones spathulate, stalked, about an inch long; those of the stem scarcely half the length, decussate, sessile, cordate, terminated by a minute purple point; the bases connivent, and almost connate. *Bractes* ovate-oblong, concave, mucronulate, connate at the base, and generally adpressed. *Panicle* forked, of from 3, 5, to 7 flowers. *Peduncles* slender, filiform, smooth, an inch long. *Calyx* clavate, rather inflated, membranous, 5-toothed, with 10 nearly obsolete angles; the base inverted: teeth very short, broadly ovate, slightly mucronulate, with a thin membranous white or purplish border. *Petals*, the lamina wedge-shaped, notched, of a pale rose colour, equal in length to the calyx; the claws about half the length of the lamina, also wedge-shaped, slightly contracted at the base, of a pale green, the border thin, the disk furnished with two elevated, obtuse, parallel ridges, which gradually disappear in the lamina. *Coronary appendages* bipartate, with lanceolate, acute, erect segments, occasionally toothed at the margin. *Stamens* 10; the alternate ones, which are opposite the petals, rather shorter. *Filaments* awl-shaped, smooth, white, thickened at the base and united into a short column, denominated the anthophorum, about equal in length to the ovarium. *Anthers* of a very pale purple, with linear, paral-

lel cells, opening lengthways, and sometimes divergent at the base. *Ovarium* oblong, marked with 5 furrows. *Stigmas* 5, semi-cylindrical, recurved at the top, papillose along the inner surface. *Capsule* rounded, ovate, one-celled. *Placenta* central, free, fungous, oblong, tuberculated. *Seeds* nearly orbicular, quite smooth, attached to the placenta by an elongated process.

This pretty little plant is extremely local in its native country, being limited to one spot only on the western Pyrenees, as we are informed by our friend, Dr. Macreight; who, together with his accomplished lady, has surveyed the botanical treasures of that interesting mountain-range. It was first described by M. Bergeret, in his "Flore des Pyrénées," but we believe no figure has yet been published of it. It is a hardy perennial, is increased by seeds or by slips, and is admirably suited for a rock-work; but the preferable mode is to keep the plants in pots, and under the protection of a pit or frame in Winter. They should be planted in a mixture of sandy loam and peat, and in small-sized pots, as they are apt to suffer from damp.

The greater or less degree of cohesion between the sepals, the number of styles, and the absence or presence of partitions in the capsule, (characters, which, in less natural families, would be reckoned of comparative little value,) afford almost the only tangible ones among the *Coryophylleæ;* and although the genera, thus constructed, may appear extremely artificial, yet it is necessary to adhere to some general rule, and I have, therefore, considered *Agrostemma* and *Lychnis* as constituting two distinct genera; for unless we are prepared to unite the whole of the *Sileneæ* into one, these two, in my opinion, are entitled to be kept apart. In *Viscaria* and *alpina,* which may be reckoned the typical species of *Lychnis,* the ovarium is constantly 5-celled, and the same is also the case in *dioica,* which forms the type of the aberrant group of the genus. The *Chalcedonica, fulgens,* and some others, having an unilocular ovarium, are really species of *Agrostemma,* with the normal ones of which their habit entirely accords. To the latter genus belongs also *Lychnis flos cuculi.*

Drawn at the Chelsea Botanic Garden, in June last.

The generic name is derived from αγρος, a field, and στεμμα, a crown, the same as the Latin name *Coronaria,* literally meaning rustic crown, from the flowers of some species of this genus having formed part of the rustic garlands among the ancient Greeks. *D. Don.*

1. Radical leaf. 2. Stamens and Pistil. 3. Petal. 4. Capsule. 5. Seed.

Lupinus mutabilis & Cruickshankii

LUPÌNUS mutábilis; *var.* Cruckshánksii.

Mr. Cruckshanks' Lupine.

Linnean Class and Order. DIADELPHIA DECANDRIA.
Natural Order. LEGUMINOSÆ. *Juss. gen. p.* 345.
LUPINUS. Suprà fol. 12.

L. *mutabilis*, sub-arborescens, glaberrimus; foliolis 5-9 oblongo-spathulatis mucronulatis, floribus verticillatis, calycis labio superiore bifido; inferiore acuto integro.
Lupinus mutabilis. *Suprà fol.* 130. *series* 1. *G. Don syst. gard. and bot.* 2. *p.* 368.
β. Cruckshanksii, floribus cœruleis.
Lupinus Cruckshanksii. *Hook. in bot. mag. t.* 3056.
L. mutabilis. *Lindl. in bot. reg. t.* 1539.

Plant biennial, of an arborescent aspect, perfectly smooth and glabrous, of a pale glaucous green, often rising to the height of 5 or 6 feet, much branched. *Stem* and *branches* round and fistulous. *Leaves* composed of from 5 to 9 leaflets, disposed in a circle, oblong-spathulate, mucronulate, soft and fleshy to the touch, 2 inches long, the edges callous, and folded at the base. *Footstalks* 3 or 4 inches long, smooth, round, and attenuated, the base thickened and flattened above. *Stipules* awl-shaped, minutely fringed, adnate. *Racemes* alary, on a long cylindrical stalk. *Flowers* large and showy, disposed in nearly equidistant whorls of from 5 to 7 flowers. *Pedicels* rather longer than the calyx, smooth and cylindrical. *Bractes* awl-shaped, slightly fringed and caducous, with a rather broad concave base. *Calyx* minutely pubescent, lips equal, the upper one deeply notched, lower one ovate-oblong, concave, pointed, slightly keeled below, furnished at the sinus with two minute pointed partial bractes. *Vexillum* with an orange disk, the lower sides blue, upper half purple. *Wings* blue. *Keel* pale purple, pointed. *Anthers* orange, five round on longer filaments. *Ovarium*

silky. *Style* filiform, attenuated upwards. *Stigma* a small bearded disk.

Differing in no respect, except in colour, from that already figured at Tab. 130 of the first series of this work. From the predominance of blue in the flowers of this genus, we are disposed to regard the present very showy variety as the type of the species. It was discovered by Mr. Cruckshanks, not far from Pasco, on the Peruvian Andes, near the limit of perpetual snow; and the plant was named in compliment to that gentleman by Dr. Hooker, who then considered it as distinct from L. *mutabilis*.

The plant is only biennial, but assumes an arborescent habit, and, if kept in the Conservatory, will continue to flourish for several years.

It is increased by seeds, but the variety is not permanent.

Our drawing was taken at the Nursery of Mr. Little, King's Road, Chelsea.

For the explanation of the generic name, see fol. 12. *D. Don.*

1. Calyx. 2. Keel. 3. Stamens. 4. Pistil.

J. Hart del. Pub. by J. Ridgway Aug. 1833 [illegible]

Tropæolum Majus & atrosanguineum

TROPÆOLUM Majus; *var.* atrosanguineum.

Dark-red Indian Cress.

Linnean Class and Order. OCTANDRIA MONOGYNIA.
Natural Order. TROPÆOLEÆ. *Juss. in mem. mus.* 3. *p.* 447.
TROPÆOLUM. Suprà fol. 134.

T. *majus*, foliis subrotundis peltatis integris, petalis subæqualibus; 3 inferioribus unguiculatis orbiculatis pectinato-fimbriatis, calcare recto subulato calyce longiori.
Tropæolum majus. *Linn. sp. pl. p.* 490. *Hort. ups. p.* 93. *Mat. med. p.* 101. *Mill. dict. n.* 2. *Curt. bot. mag. t.* 23. *Willd. sp. pl.* 2. *p.* 298. *Dec. prodr.* 1. *p.* 683. *G. Don. syst. gard. and bot.* 1. *p.* 746.
T. foliis peltatis orbiculatis. *Linn. hort. cliff. p.* 143.
Cardamindum ampliori folio et majori flore. *Tournef. Feuill. peruv.* 3. *p.* 14. *t.* 8.
C. majus s. Acriviola flore simplici aureo. *Knorr del. t. R.* 18.
Acriviola maxima odorata. *Boerh. lugdb.* 1. *p.* 244.
Viola inodora, scandens, nasturtii sapore, maxima odorata. *Herm. lugdb.* 628. *t.* 629.
β. *atrosanguineum*, floribus atrosanguineis.

Root fibrous, annual. *Stem* round, procumbent, branched, slightly angular towards the top, generally about a foot high. *Leaves* on long footstalks, round, peltate, with 7 broad even angles, peltately nerved, copiously furnished on both sides with papillose hairs, especially the young ones, the upper surface becoming quite smooth, varying from an inch and a half to 3 inches in breadth; the angles truncate, slightly emarginate, or furnished with a very short cartilagineous point. *Footstalks* from 2 to 6 inches long, cylindrical, smooth, flexuose, slightly attenuated towards the top. *Peduncles* longer than the leaves, cylindrical, thickening downwards. *Flowers* large, of a very dark red, and of a rich velvetty hue. *Calyx* orange, somewhat bilabiate, with 5 ovate, oblong, rather acute lobes, marked inside with several dark-red lines, 2 lower ones narrower, and more deeply divided; the anterior and posterior ones over-lapping the others in æstivation. *Spur* an inch long, subulate, straight, gently widening upwards. *Petals* 5, nearly equal; 3 lower ones

with semicylindrical channelled claws, and a broad, round, flat lamina, fringed at the base with many linear bristle-pointed segments; 2 upper ones sessile, naked, rather larger, obovate, an inch and a half long, the claws connate with the calyx. *Stamens* 8, hypogynous, unequal, declinate. *Filaments* roundish, smooth, marked with dark-red lines. *Anthers* yellow, oblong, obtuse, tetragonal, 2-celled; the valves involute at the edges. *Pollen* deep yellow. *Ovaria* 3, united together, with 5 stout prominent ribs. *Style* obtusely 3-sided, with a trifid apex; the lobes subulate, diverging. *Stigma* a truncate glanduliform dot.

Perhaps, of all plants cultivated for a long series of years, the common Nasturtium is the most striking example that can be adduced of the power possessed, by certain species, of resisting the influences of soil and climate, and of preserving unchanged their characters, even to the colour of their flowers, the present being almost the only variation we have remarked of that common plant. Its large dark-red blossoms, of a velvetty hue, render it a most desirable acquisition to the flower border. It is usually more dwarf than the common kind, and, like it, will thrive in almost any soil. It is readily increased by cuttings; but we have little doubt, that a portion of the immutable nature of the parent species has descended to its aberrant progeny, and that it may likewise be continued from seed.

Drawn at the Nursery of Messrs. Allen and Rogers, at Battersea.

The generic name will be found explained at fol. 134 of the last volume. *D. Don.*

1. Stamens 2. Pistil. 3. Fruit.

S. T. Hurt del. Pub. by J. Ridgway 169 Piccadilly Sep. 1833. P. W. Smith.

~~Astrœmeria aurantiaca~~

ALSTRŒMÈRIA aurántiaca.

Orange-flowered Alstrœmeria.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. AMARYLLIDEÆ. *Brown prodr.* 1. *p.* 296.
ALSTRŒMERIA. Suprà fol. 228. series 1.

A. *aurantiaca*, erecta; foliis lanceolatis obtusis glabris obsoletè denticulatis, perianthii foliolis integerrimis; interioribus lanceolatis acuminatis erectis.

Herb glaucous. *Stem* erect, from 1 to 3 feet high, round, or slightly angular, flexuose, copiously besprinkled, as well as the upper surface of the leaves, with minute crystalline bodies. *Leaves* scattered, lanceolate, obtuse, from 2 to 3 inches long, half-an-inch or rather more in breadth; narrowed at the base into a rather long footstalk; the edges cartilaginous and very finely denticulate, furnished above with several prominent nerves; the under surface quite smooth and even, reversed by the twisting of the footstalk. *Flowers* several, terminal, cymose, orange. *Peduncles* angular. *Perianthium*, the 3 outer leaves spathulate, even, recurved and spreading, an inch and a half to 2 inches long, furnished at the top with a short callous point; the ribs externally green; three inner ones lanceolate, acuminate, narrower, and nearly erect, slightly waved and curled at the upper edge, marked along the middle with two elevated lines; the upper ones marked with several linear dark red spots; lower ones smaller, of a uniform colour, but sometimes, although rarely, furnished with two spots. *Claws* narrow, linear, keeled, channelled within, half-an-inch long, rigid, distant at the base, the edges folded, thickened and minutely papillose. *Stamens* 6, unequal, hardly longer than the perianthium, at first declinate, but becoming more erect after impregnation. *Filaments* long, awlshaped, smooth. *Ovarium* turbinate, 6-sided, with elevated, compressed, acute angles. *Style* 3-sided, about half the length of the stamens only, with a

trifid apex. *Stigmas* 3, obtuse, minutely papillose. *Capsule* rounded, 3-celled. *Seeds* many, flat, nearly orbicular, arranged in double rows.

We fear this very showy plant is scarcely entitled to be regarded in any other light than as a mere variety of A. *Simsii*, given at tab. 267 of the first series of this work, and from which, besides colour, it is chiefly distinguished by its perfectly glabrous leaves, by the lanceolate and more pointed inner foliola of the perianthium, and by their longer and narrower claws; but the erect species of this genus are found to vary so exceedingly, that we are sceptical of any definition that can be given of them.

Introduced from Chile, by Mr. Anderson, the indefatigable collector, who accompanied Captain King in his voyage of survey in South America.

The plant requires the same treatment as A. *Simsii*, and appears to be quite as hardy as that species. Our drawing was taken at the Clapton Nursery, in June last.

The leaves in this genus are, by the twisting of the petiole, resupinate; the upper surface, which, in other plants, is usually smooth, even, and destitute, both of ribs and stomata, having the peculiar structure, and performing the functions of the under surface. The discovery of this curious economy in the leaves of *Alstrœmeria* is due to Mr. Brown, who first pointed it out some years ago.

The generic name is already explained at fol. 228 of the first series. *D. Don.*

1. Stamens. 2. Ovarium.

[illegible] Sept 1833. F. W. Smith sc.

Collomia lateritia

COLLÒMIA lateritia.

Red-flowered Collomia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. POLEMONIACEÆ. *Vent. tabl.* 2. *p.* 398.
COLLOMIA. Calyx 5-fidus. *Corolla* hypocrateriformis, limbo 5-partita. *Stamina* corollæ tubo inserta. *Ovarium* 3-loculare: *ovulis* solitariis. *Capsula* 3-locularis, 3-valvis: *loculis* monospermis. *Semina* angulata.
Herbæ (Americanæ) *annuæ, glanduloso-pubescentes.* Folia *sparsa, indivisa.* Flores *terminales, congesti, bracteati, rubri.*

C. *lateritia.* laciniis calycinis lanceolatis acuminatis, corollæ tubo calyce vix longiori, staminibus inclusis.

Root annual, fibrous. *Stem* about a span high, erect, branched or simple, cylindrical, clothed like the other parts of the plant with glandular, clammy pubescence. *Leaves* alternate, sessile, lanceolate, acuminate, entire, or deeply and sharply toothed, especially the lower ones. *Flowers* crowded at the extremities of the branches, fasciculate. *Bractes* linear-lanceolate, acuminate. *Calyx* cleft to the middle into 5 lanceolate, acuminate, connivent, and nearly equal segments; the tube turbinate and pentagonal. *Tube of the corolla* narrow, 5-sided, yellow, scarcely equalling the calyx in length, copiosely clothed with glandular pubescence, rather widened at both extremities. *Limb* spreading, 5-partite, segments, oblong-elliptical, obtuse, beneath of a pale salmon colour, above of a deep vermilion tint, traversed by several straight, and almost simple, nearly parallel nerves. *Stamens* 5, included within the tube of the corolla, unequal. *Filaments* very short, awl-shaped, smooth. *Anthers* reniform, bilocular, of a cream colour, opening lengthways; the cells slightly divergent at the base. *Ovarium* rounded, 3-celled, with solitary ovula. *Style* capillary, smooth, attenuated at the base. *Stigmas* 3, linear, obtuse, rather thick, copiously covered with minute papillæ. *Capsule* 3-celled, valves cartilaginous, pro-

minent at the top, resembling 3 lobes. *Seeds* dark-brown, solitary in each cell, convex on the outside, marked with a deep furrow within. *Albumen* copious, cartilaginous. *Embryo* pale yellow. *Cotyledons* oval, longer than the radicle.

Introduced from Chile, by Mr. Hugh Cuming. It is distinguished from the C. *Cavanillesii* of Messrs. Hooker and Arnott, by its much smaller flowers, and by the tube of the corolla scarcely exceeding the calyx in length, while in that species it is nearly twice as long.

It is a hardy annual, of very easy culture, and ripens its seeds freely, which come up spontaneously in the open border.

Our drawing was taken at the Botanic Garden, Chelsea, in July last.

The genus is scarcely distinguishable from *Gilia*, except by the stamens being inserted in the tube of the corolla, and by the monospermous cells of its capsule; but *Collomia heterophylla*, in which the seeds are occasionally solitary, and rarely ever more than two, would, perhaps, justify their union. *D. Don.*

1. Calyx, with the bractes. 2. Corolla laid open to show the insertion of the stamens. 3. Pistil 4. Capsule.

Pub. J. Ridgway 169 Piccadilly Sept 1833.

F.W. Smith

Verbena venosa

VERBÉNA venosa.

Veiny-leaved Vervain.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. VERBENACEÆ. *Brown prodr.* 1. *p.* 510.
VERBENA. Suprà fol. 202.

V. *venosa*, scabra; foliis oblongis mucronatis dentato-serratis, spicis abbreviatis corymboso-paniculatis, corollæ laciniis cuneato-rotundatis dilatatis emarginatis.
Verbena venosa. *Gill. and Hook. in bot. misc.* 1. *p.* 167. *Hook. in bot. mag. t.* 3127.

Whole herb of an opaque green, harsh and rough, with short simple bristly hairs, intermixed with glanduliferous ones. *Root* perennial, occasionally creeping, and sending forth subterraneous shoots. *Stem* upright, branched, varying from a foot to 2 feet high, stiff, with 4 angles; the two opposite ones alternately channelled. *Leaves* decussately-opposite, sessile, oblong, or linear-oblong, of nearly equal breadth, mucronate, sharply and copiously toothed, especially towards the apex, wrinkled and veiny on both surfaces, scarcely paler beneath, the base broad and slightly decurrent, with a white, flattish mid-rib, from 2 to 5 inches long, and about an inch broad. *Flowers* of a brilliant purple, changing to violet, on fading, in short thick spikes, of about an inch long, disposed in a corymbose panicle. *Bractes* linear-lanceolate, acuminate, channelled, hispid, longer than the calyx. *Calyx* hispid, tubular, 5-sided; the teeth very short, ovate, mucronate, conduplicate, erect, with the interstices membranous. *Corolla*, the tube dark red, thrice longer than the calyx; hairy both within and without; the limb 5-lobed, glabrous, with the lobes equal, broad, round, and cuneiform, notched, spreading, veiny. *Stamens* 4, didynamous, inserted about half way down the tube. *Filaments* short, smooth. *Anthers* cordate, mucronulate, yellow,

the cells marginal, attached lengthways to a broad, pointed connectivum. *Ovarium* bilocular, rounded, smooth. *Style* very short, compressed, smooth, attenuated at the base. *Stigma,* a pale, greenish, depressed gland, seated between the produced sides of the style; the posterior lobe elongated and pointed.

This very showy species of *Verbena* is a native of the Pampas of Buenos Ayres, where it was discovered by Dr. Gillies, and from seeds communicated by him to Mr. Neill, plants were raised, which blossomed, for the first time, in the garden at Canonmills, near Edinburgh, in the Summer of 1831.

It is nearly related to V. *bonariensis*, but differs in its much dwarfer size, shorter spikes of larger and redder flowers, with the lobes of the corolla broader and deeply notched. It will be found to grow in almost any soil; is readily increased by slips, and blossoms abundantly in the open border during the Summer months.

Our drawing was taken at Mr. Knight's Nursery, King's Road, Chelsea, in July last.

The generic name is already explained at fol. 295 of the first series. *D. Don.*

1. Bracte. 2. Calyx. 3. Corolla laid open to show the insertion of the Stamens. 4. Pistil.

J. T. Hart del. Pub by J. Ridgway 169 Piccadilly Sept 1. 1833. F. W. Smith sc.

Platycodon grandiflorum

PLATYCÒDON grandiflòrum.

Great Bell-flower.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. CAMPANULACEÆ. *Brown prodr.* 1. *p.* 559.
PLATYCODON. Calyx 5-fidus. *Corolla* apice 5-loba, maxima, infundibuliformis. *Stamina* 5, inter se libera, filamentis basi latioribus. *Stigmata* 3-5. *Capsula* 3-5-locularis, apice 3-5-valvis medio septiferis dehiscens: *loculi* (quandò 5 adsunt) lobis calycinis et staminibus alterni *Semina* ovoidea, majora quàm vulgò in ordine, nitida, non angulosa.

Herbæ (ex Asiâ orientali,) *perennes, sæpè glaucescentes;* foliis *alternis vel sub-oppositis, sessilibus, magnitudine mediocribus, supernè minoribus;* floribus *paucis terminalibus, solitariis, pedunculatis.* Alph. Decand. monogr. p. 125.

P. *grandiflorum*, glabrum; foliis ovato-lanceolatis acuminatis argutè serratis, capsulâ 5-loculari.
Platycodon grandiflorum. *Alph. Decand. l. c. p.* 125.
Wahlenbergia grandiflora. *Schrad. cat. hort. gætt. ann.* 1814.
Campanula grandiflora. *Jacq. hort. vind.* 3. *p.* 4. *t.* 2. *Linn. fil. suppl. p.* 140. *Willd. sp. pl.* 1. *p.* 891. *Solander in hort. kew.* 1. *p.* 218. *Curt. bot. mag. t.* 252. *Rœm. et Schult. syst.* 5. *p.* 111. *Herb. de l'amat. fasc.* 19. *t.* 112. *Spreng. syst.* 1. *p.* 735.
C. gentianoides. *Lam. dict.* 1. *p.* 781. *ill. t.* 2513.
C. urticæ foliis glabra, floribus amplissimis pendulis. *Amm. ruth. p.* 11.
C. foliis lanceolatis glabris, inæqualiter dentatis, utroque extremo integris, ramis unifloris terminantibus. *Gmel. sib.* 3. *p.* 153.

The whole herb of a dull glaucous green. *Root* perennial, thick and fleshy. *Stems* erect, filiform, flexuose, mostly simple and single-flowered, but occasionally branched, with from 3 to 5 or even 7 flowers. *Leaves*, the primordial ones on long, slender, footstalks, heart-shaped, nearly orbicular, and serrate; those of the stem alternate, sessile, occasionally opposite, and sometimes verticillate, ovate-lanceolate, acute, sharply and unequally serrated, an inch and a half long, paler beneath, and elegantly marked with reticulated veins, the base cuneiform and entire; upper ones more ovate, and acuminate. *Flowers* solitary. *Peduncles* filiform, from 2 to 3 inches long, furnished with 1 or 2 lanceolate, leafy bractes. *Calyx* turbinate, rather depressed, smooth, glaucous, besprinkled with minute crystalline bodies; segments ovate-lanceolate, acute, entire and slightly revolute at the

margin. *Corolla* large, spreading, of a deep blue, about the size and shape of that of *Campanula persicifolia*, inflated, turbinate and depressed at the top in æstivation, the lobes semi-ovate, rather acute. *Filaments* linear, pale, membranous, dilated at the base into a broad, orbicular, petaloid disk, of a violet colour, and bearded above with white hairs. *Anthers* linear, bilocular, cream-coloured, the cells parallel, connate, opening lengthways, with the connectivum produced into a short point. *Ovarium* 5-celled, the upper half free and conical. *Style* thick, round, scarcely so long as the free portion of the ovarium. *Stigma* green, 5-lobed, with an obconical base, copiously hairy, the lobes oblong, semicylindrical, with a thick, blunt, hooked point. *Capsule* 5-celled, opening at the top by 5 elevated valves.

One of the showiest of this showy group of plants, and although introduced many years ago, it is still far from common in our gardens. It has entirely the habit of *Adenophora*, another genus separated from *Campanula*, and is chiefly distinguished from *Wahlenbergia*, by the broad petaloid bases of the filaments.

It will be found to thrive best in a mixture of peat and loam, and is increased by parting the roots, or by seeds.

Our drawing was taken at Mr. Knight's Nursery, King's Road, Chelsea.

The generic name is compounded of πλατυς, broad, and κωδων, a bell-flower, literally meaning great bell-flower. *D. Don.*

1. Stamens and Pistil. 2. Stamen separate.

J. T. Hart del. Pub. by J. Ridgway 169 Piccadilly Oct. 1 1833. F. W. Fairholt

CLÁRKIA élegans.

Elegant Clarkia.

Linnean Class and Order. OCTANDRIA MONOGYNIA.
Natural Order. ONAGRARIÆ. *Decand. prodr.* 3. *p.* 35.
CLARKIA. Suprà fol. 157.

C. *elegans*, foliis ovato-lanceolatis acuminatis, petalis integris, filamentis basi barbatis; omnibus fertilibus, ovariis pilosis.
Clarkia elegans. *Douglas Mss. Lindl. in bot. reg. t.* 1575.

Herb annual, erect, a foot to 2 feet high, branched and spreading. *Branches* long, filiform, purple, smooth and shining, and covered with a bluish bloom. *Leaves* scattered, on short footstalks, ovate-lanceolate, or lanceolate, acuminate, sparingly denticulate, smooth, of a dull glaucous green, an inch or two in length, the base rather acute. *Flowers* axillary, solitary, distant, in prolonged, loose spikes. *Calyx* hairy; the tube short, ventricose, and campanulate; the limb 4-partite, with lanceolate, acute segments, generally united together in pairs. *Petals* 4, a rich lilac, broadly rhomboid, crumpled and crenated at the edges, on long, narrow, linear claws, which are paler, about equal the length of the lamina, and dark-red at the base. *Stamens* 8, all fertile; 4 inner ones opposite the petals, twice shorter, and altogether smaller. *Filaments* linear, compressed, bearded at the base. *Anthers* linear, recurved, dark-red, attached near the base, composed of 2, parallel, connate cells, opening lengthways. *Pollen* pale violet, granular. *Style* filiform, slender. *Stigma* white, with 4, rounded ovate, entire, spreading, thickly papillose lobes. *Capsule* of 4 cells, and 4 valves, narrow, rather more than half an inch long, straight, or curved, shining and deeply furrowed, clothed with straight, white, spreading hairs. *Seeds* obovate, angular, ventricose.

Taller and more straggling than C. *pulchella*, and much inferior to it in beauty. It was discovered by Mr. Douglas in California, and introduced last year to the gardens of the Horticultural Society. It is a hardy annual, producing seeds abundantly, and is of very easy culture.

Our drawing was taken from a specimen communicated by the Messrs. Young, of the Epsom Nurseries.

The alternate stamens being also fertile in this species, abrogate a character, which was regarded as the chief distinction of the genus; and unless the narrow lengthened claws of the petals be considered such, there is no other available mark to prevent its merging into *Œnothera*, with which it in other respects entirely accords.

For the explanation of the generic name, see fol. 157. *D. Don.*

1. A pair of Stamens. 2. Style and Stigma.

J. T. Hart del. Pub. by H. Ridgway 169 Piccadilly Oct. 1. 1833. F. W. S.

MIMULUS roseus.

Pink Monkey-flower.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. SCROPHULARINÆ. *Brown prodr.* 1. *p.* 433.
MIMULUS. Calyx prismaticus, 5-dentatus. *Corolla* personata, labio superiore bilobo, lateribus reflexis, inferiore trifido, laciniis subæqualibus. *Stamina* didynama. *Antherarum* lobis divaricatis. *Stigma* bilamellatum. *Capsula* inclusa, bilocularis, bivalvis, valvis integris, medio septiferis.
Herbæ *oppositifoliæ.* Pedunculi *axillares, ebracteati.* Brown l. c. p. 439.

M. *roseus*, glanduloso-pubescens; foliis elliptico-oblongis acutis subintegerrimis, pedunculis calyce brevioribus, dentibus calycinis acuminatis subæqualibus, corollæ lobis emarginatis.
Mimulus roseus. *Douglas Mss. Lindl. in bot. reg. t.* 1591.

The whole herb copiously clothed with glandular hairs, very soft and slimy to the touch, exhaling a strong odour of musk. *Stem* a span to a foot high, jointed, round, with 2, opposite, rather prominent ridges. *Leaves* sessile, ovate-oblong, acute, occasionally furnished with a few, minute teeth, from an inch to 2 inches long, very soft, and marked underneath, with 5 rather prominent ribs. *Flowers* axillary, solitary. *Peduncles* cylindrical, half an inch long. *Calyx* rather longer than the peduncles, with 5, elevated angles, and 5, ovate, acuminate, conduplicate, equal, slightly recurved teeth. *Corolla* ringent, about twice as long as the calyx, the tube yellow, throat ventricose, pale, almost white, marked with purple spots, and 2, elevated, yellow, bearded folds; the lobes oblong, rounded, notched, spreading, of a deep rose-colour; the upper ones folded back; lower ones rather cuneiform, broader. *Stamens* 4, inclosed, nearly equal. *Filaments* subulate, smooth, white, half an inch long. *Anthers* pale yellow, of 2 divaricately spreading lobes, confluent at the top, and covered with bristly papillæ. *Ovarium* oblong, rather compressed, bilocular, smooth. *Style* white, com-

pressed in a contrary direction to the ovarium, of which it is double the length. *Stigma* composed of 2, broad, rounded, almost orbicular, thin lamellæ, covered obove, but especially at the border, which is crenulate, with minute papillæ.

This very distinct species was discovered by Mr. Douglas in Northern California, and but recently introduced by him to the garden of the Horticultural Society. In affinity it comes next to M. *moschatus*, and, like it, exhaling a powerful odour of musk. The plant is perennial, with a somewhat woody stem, and is increased by seeds, or by cuttings; but although thriving sufficiently well in the open border during the Summer months, it requires to be protected in the greenhouse in Winter. The flowers are produced but sparingly in the bosom of the leaves, and the plant by no means answers the expectations that had been formed of it. We are indebted to Mr. Knight, of the Exotic Nursery, King's Road, Chelsea, for the specimen whence our drawing was taken. *D. Don.*

1. Lower lip of the Corolla. 2. Pistil.

Hart del

Pub. by J. Ridgway 169 Piccadilly Oct 1. 1833.

F. W. Smith

PENSTÈMON ovàtus.

Ovate-leaved Penstemon.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. CHELONEÆ. *Calyx* 5-partitus. *Corolla* fauce ventricosa, limbo 5-loba, bilabiata, æstivatione imbricatâ. *Stamina* 4 *fertilia* didynama; *quinti rudimento* sterili, sæpiùs elongato, barbato. *Antheræ* biloculares: *loculis* apice confluentibus. *Stigma* simplex, indivisum. *Capsula* bilocularis, apice septicido-dehiscens, polysperma: *septo* incompleto. *Semina* erecta, compressa, margine membranacea: *testâ* membranaceâ: *albumen* carnosum, parcum. *Embryo* sub-foliaceus.

Herbæ v. suffrutices (Amer. Septentr.) Folia *opposita*. Inflorescentia *paniculata v. spicata.*

Obs. Tribus Bignoniaceis proximè affinis, calyce tamen subpolyphyllo, stigmate simplici, seminibus erectis albuminosis facilè distinguitur. *D. Don Mss.*

PENSTEMON. Calyx 5-partitus. *Corolla* tubulosa, fauce ventricosa, limbo 5-loba, bilabiata. *Staminum quinto* sterili, sæpiùs elongato, apiceque barbato. *Antheræ* imberbes. *Capsula* bilocularis, septicido-dehiscens: *valvis* apice bifidis. *Semina* compresso-angulata, margine membranacea.

Inflorescentia *paniculata!*

P. *ovatus*, pubescens; foliis ovatis cordatisve dentato-serratis; radicalibus petiolatis; superioribus amplexicaulibus, paniculâ racemosâ, segmentis calycinis lanceolatis, corollis glandulosis.
Penstemon ovatus. *Douglas in bot. mag. t.* 2903.

The whole herb of rather a dark green. *Stems* upright, cylindrical, from a foot to three feet high, thickly clothed with short spreading hairs. *Leaves* ovate or cordate, acute, serrate, with sharp, nearly equal teeth, at first pubescent, but afterwards becoming glabrous; radical ones broader, on long footstalks, sinuately and more coarsely toothed, from two to four inches long, and sometimes two in breadth, the base obliquely cordate, or sometimes nearly truncate, slightly attenuated at the middle; the upper ones and bractes clasping the stem, and frequently entire. *Footstalks* narrow, two to three inches long, channelled above, bluntly keeled below. *Flowers* numerous, rather crowded, disposed in a thyrsiform panicle. *Segments of the calyx* ovate-lanceolate, rather acute, with a narrow membranous border, shorter than the tube of the corolla, and as well as the pedicels furnished with short,

glandular hairs. *Corolla* of a bright azure blue, afterwards changing to purple, copiously clothed with glandular pubescence, varying in size in different individuals, from half an inch to nearly an inch long; tube white below; throat ventricose; upper lip recurved, lower one 3-lobed, spreading, bearded above with white, jointed hairs; lobes oblong, entire, even. *Stamens* 5, of which 4 are fertile. *Filaments* slightly compressed, bent, smooth, their upper half purple; upper pair quite free, thickened and yellow at the base; the two lower ones, which are also the longest, attached, for nearly half their length, to the tube of the corolla; sterile one attached half way, and by bending forwards occasions an elevated fold in the tube of the corolla; the apex flattened, narrow and spathulate, and bearded above with yellow bristly hairs. *Anthers* naked, purple behind, the cells confluent at the top. *Style* filiform, smooth. *Stigma* an obtuse dot, covered with minute papillæ. *Capsule* ovate, acuminate, bilocular; valves crustaceous, concave, bifid at the top. *Partition* double, formed by the introflexed edges of the valves. *Seeds* dark-brown, angular, dotted, compressed, with a pale narrow membranous border, their taste slightly acrid.

A hardy perennial, native of limestone rocks on the high mountains about the Grand Rapids of the Columbia River, whence it was introduced by Mr. Douglas to the Garden of the Horticultural Society, in 1826. It delights in a calcareous or light loamy soil, and is increased by slips, or by seeds. This highly ornamental genus has of late been greatly enriched by the discoveries of our indefatigable friend, Mr. Douglas, but none of the others, in our opinion, surpasses the present in the rich colouring of its flowers.

The flowers are found to vary considerably in size, but it is rather to be attributed to the effect of luxuriance than to any actual difference in the plants themselves. Dr. Hooker, and Mr. Douglas, appear to have entirely overlooked the attachment of the sterile filament, and have evidently mistaken the prominent fold of the corolla for an appendage to it. Sometimes the five stamens are fertile, and then the filaments are all free. Our drawing was taken at Colvill's Nursery, King's Road, Chelsea, in July last.

1. Calyx and Pistil. 2. Corolla laid open. 3. Large-flowered variety. 4 & 5. Calyx and Corolla of the same.

...el del. Pub. by S. Ridgway 169 Piccadilly Oct 1. 1833. F. W. Smith sc.

LUPINUS ornatus.

Ornamental Lupine.

Linnean Class and Order. DIADELPHIA DECANDRIA.
Natural Order. LEGUMINOSÆ. *Juss. gen. p.* 345.
LUPINUS. Suprà fol. 12.

L. *ornatus*, perennis, argenteo-sericeus; foliolis subseptenis lineari-lanceolatis mucronatis, calycis labio superiore bifido; inferiore acuto carinato longiore, leguminibus 4-5-spermis.
Lupinus ornatus. *Douglas Mss. Lindl. in bot. reg. t.* 1216.

Plant herbaceous, perennial, thickly clothed with short adpressed silky hairs, of a silvery hue. *Stems* erect, a foot or a foot and a half high, nearly simple, cylindrical, and marked with two elevated lines arising from the decurrent bases of the leaves. *Leaves* on filiform footstalks, from an inch to two inches long, thickened and slightly flattened above at the base. *Leaflets* mostly 5 or 6, but occasionally 4 or 7, and sometimes rarely 12, linear-lanceolate, pointed, silvery, slightly channelled above, furnished below with a prominent midrib, attenuated towards the base, broader upwards, from an inch to an inch and a half long, the apex slightly recurved. *Stipules* narrow, somewhat subulate, erect, rather adpressed, channelled, deciduous, three lines long. *Flowers* numerous, scattered, or somewhat aggregate and semiverticillate, disposed in loose, spiked racemes, of from three to seven inches long. *Pedicels* very short, purplish. *Bractes* caducous, lanceolate, attenuated, concave, membranous, rather longer than the pedicels. *Calyx* silky, the lips ovate-oblong, concave, upper one notched, lower rather longer, acute, keeled. The *vexillum* and *wings* of the Corolla varying from a bright blue to a pale purple, veiny, the disk of the former white, with a yellow spot, terminated by a short carinate point, with the sides folded back. *Keel* white, with a dark purple, acuminate point, the edges fringed with soft hairs. *Stamens*

monadelphous, five shorter and stouter with oblong anthers. *Style* filiform, glabrous, attenuated towards the top. *Stigma* a small fringed disk. *Pod* silky, with four or five small, white, smooth seeds.

A native of mountain valleys on the Columbia River, where it was discovered by Mr. Douglas, and introduced by him to the Garden of the Horticultural Society in 1827. The plant is now not uncommon in collections, as it produces its seeds in abundance, and is found to be one of the hardiest of the whole genus. It varies a good deal in the colour of the flowers, the pale purple variety represented in our plate appearing to be the most common.

A hardy perennial, flowering from May till the commencement of Winter, and appearing to delight in a sandy soil. Drawn at Mr. Knight's Nursery, King's Road, Chelsea.

1. Calyx. 2. Keel. 3. Stamens. 4. Pistil. 5. Pod.

J. Hart del. Pub by J. Ridgway 169 Piccadilly Nov 1. 1833. P. W. Smith sc.

HABRÁNTHUS miniatus.

Red Habranthus.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. AMARYLLIDEÆ. *Brown prodr.* 1. *p.* 296.
HABRANTHUS. Suprà fol. 107.

H. *miniatus*, umbellâ pluriflorâ, perianthio campanulato: tubo limbo ter breviori: fauce barbatâ, scapo lævissimo foliis vix altiori.

Bulb ovate, covered with a dark-brown membranous coat. *Scape* about a foot high, erect, hollow, compressed, with blunt edges, very smooth and even, glaucous, rather thicker than a goose quill. *Leaves* linear, channelled, glaucous, quite smooth, convex and blunt underneath, with a flat rounded apex, scarcely equalling the scape in length. *Umbel* composed of from 2 to 5 flowers, but more frequently of 3. *Spathe* rather longer than the peduncles, composed of 2 linear channelled, scariously membranous valves. *Peduncles* slightly compressed, smooth, an inch and a half long, intermingled with small, narrow, bristle-pointed, membranous bractes. *Perianthium* smaller than in H. *roseus*, of a red colour, campanulate; limb 6-parted, spreading, thrice longer than the reversely conical, green tube; throat contracted, and closed up by a white, filamentose fringe; segments lanceolate, erect, underneath paler and of a greenish cast, marked above with deeper coloured lines; the 3 outer ones terminated by a green point, which is papillose at the base; the inner ones blunt and pointless. *Stamens* 6, declinate, of 2 lengths only; the 3 outer ones a little shorter. *Filaments* filiform, smooth, of a pale rose-colour, white at their base. *Anthers* linear, incumbent, 2-celled. *Ovarium* 3-celled, with numerous, rounded, compressed ovules, arranged apparently in a single row. *Style* nearly cylindrical, longer and stouter than the

filaments. *Stigma* of 3 truncate, keeled, papillose, recurved lobes. The ripe capsule I have not seen.

This very distinct species, well characterised by its perfectly smooth and even scape, and many-flowered spathe, is a native of Chile, and was introduced last year from bulbs collected in that country by Mr. Hugh Cuming. It requires a mixture of vegetable earth and sand, and will, doubtless, like most bulbous plants from the same country, succeed well in the open air in a warm sheltered border.

Drawn at Mr. Colvill's Nursery, in July last.

For the explanation of the generic name, see fol. 107. *D. Don.*

1. Stamens and Pistil.

J. Hart del. Pub by J. Ridgway 169 Piccadilly Nov 1 1833. J. W.

CHÆTANTHÈRA serrata.

Tooth-leaved Chætanthera.

Class & Order. SYNGENESIA POLYGAMIA SUPERFLUA.
Natural Order. COMPOSITÆ. *Adans. fam.* 2. *p.* 103.
Fam. II. LABIATIFLORÆ. *Don in Linn. trans.* 16. *p.* 184.

CHÆTANTHERA. Involucrum multiplici ordine polyphyllum, imbricatum. *Receptaculum* planum, glabrum. *Flosculi radii* plurimi, fœminei, staminibus effætis; *labio exteriore* ligulato, tridentato, subtùs sericeo-villosissimo; *interiore* tenuissimo, bidentato, spiraliter convoluto; *disci* hermaphroditi, tubulosi, bilabiati: *labiis* subæqualibus. *Antherarum setæ* ramulosæ. *Styli ramis* in corollis radii connatis, clavatis, glabris; in iis disci spathulatis, recurvato-patentibus, extùs minutè papillosis, superficie stigmaticâ æquilatâ. *Achenia* lineari-oblonga, compresso-tetragona, truncata, papilloso-micantia. *Pappus* pilosus, persistens: *radiis* copiosis, duplici ordine digestis, scabris, imâ basi conferruminatis.

Herbæ (Chilenses) *plerumque caulescentes, capitulis solitariis magnis radiatis, floribus sæpiùs aureis.*

** *Involucri squamis simplicibus, adpressè imbricatis. Plantæ suffruticosæ, cæspitosæ, caulibus unifloris, foliis cuneatis dentato-spinulosis, floribus aureis.* Proselia.

C. *serrata*, foliis lineari-cuneatis apice serratis, involucri squamis lanceolatis mucronatis, pappo subsetaceo. *D. Don. in Phil. Mag. May*, 1832. *p.* 391.
Chætanthera serrata. *Ruiz et Pavon syst. veg. flor. peruv. et chil.* 1. *p.* 191.
C. chilensis. *Dec. in ann. mus.* 19. *p.* 70. *t.* 3. *f.* 8. *Lag. amen. nat.* 1. *p.* 38.
Perdicium chilense. *Willd. sp. pl.* 3. *p.* 2118.
Proselia serrata. *Don. in Linn. trans.* 16. *p.* 235.

Plant perennial, tufted, dividing into many short leafy branches, evergreen, and somewhat suffruticose, thickly clothed with adpressed silky hairs. *Stems* many, decumbent, filiform, wiry, from 2 to 3 inches long, of a purplish colour, rather naked below, but furnished at the top with many bracteal leaves. *Leaves* narrow, linear-cuneiform, channelled, varying from half an inch to two inches long, and armed at the apex with numerous, short, hard, conical, spinous teeth. *Footstalks* short, broad and imbricated at the base. *Capitula* terminal, solitary, in the early state ovate. *Scales of the involucrum* imbricate, oblong, mucronate, becoming brown and apparently withered at the apex. *Receptacle* flat, pitted and glabrous. *Florets of the ray*, from 15 to 20, disposed in a double, or triple order, oblong-elliptical, sharply 3-toothed, recurved and spreading, half an inch long, of a brilliant yellow, and slightly rugose above, purplish beneath, and clothed

with silky hairs, having a small, linear, two-toothed, spirally convolute inner lip, a narrow compressed, glabrous tube, 5 sterile stamens, with pointed membranous anthers, and a smooth club-shaped stigma, with connate lobes. The *florets of the disk* are of an orange yellow, tubular, quite glabrous, tube cylindrical, green, the limb composed of two nearly equal, ovate, erect, concave lips, the outer one 3-toothed, inner one 2-toothed. *Filaments* compressed, white, glabrous, thinner and membranous at the base, the upper joint short, contracted. *Anthers* united into a tube, yellow, furnished with 2 branched bristles at the base, and terminated by a linear, acute, rigid, brownish appendage, exceeding the anther itself in length. *Style* filiform, with separate, spathulate, recurved and spreading branches, which are externally minutely papillose just below the apex. *Stigmatic surfaces* as broad as the branches of the style, terminating abruptly just below their apex. *Achenia* 4-sided, compressed, and thickly covered with crystalline papillæ, those of the ray narrower and flatter. *Pappus* pilose, persistent, of a pale sulphur colour, the rays unequal, pointed, rather bristly, spirally twisted, finely toothed and scabrous, and disposed in a double series.

The absence of foliaceous appendages to the scales of the involucrum, so strikingly developed in C. *ciliata*, led me formerly to regard the plant now before us, as constituting the type of a new genus, but afterwards finding in the collections of Dr. Gillies and Mr Cuming, other species, clearly allied to this, and possessing foliaceous appendages, it became evident that the genus could be no longer retained, and the importance of those appendages, as in the case of *Mutisia*, reduced to the degree of a specific character.

The plant is perennial, with a somewhat woody caudex, and has been but very lately introduced from Chile, where it is found growing abundantly in sandy places, particularly in the Provinces of Conception, Rere, and Santiago.

Our drawing was taken, in July last, at Mr. Knight's Nursery, where the plant had been raised from seeds received from Mr. Cuming. The plant is impatient of wet, and should be protected in a pit, or frame, in Winter, and may be increased by slips or seeds.

The generic name alludes to the bristles at the base of the anthers, a character common to all the plants of this family, and is compounded of χαιτη, a bristle, and ανθερα, an anther. *D. Don.*

1. Floret of the ray. 2. Floret of the disk. 3. Radical leaf.

Published by S. Ridgway 169 Piccadilly Nov. 1[illegible]

POLÝGALA thesioìdes.

Flax-leaved Milkwort.

Linnean Class and Order. DIADELPHIA OCTANDRIA.
Natural Order. POLYGALEÆ. *Juss. in ann. mus.* 14. *p.* 386.
POLYGALA. Calyx 5-partitus; *segmentis* 2 *interioribus* aliformibus. *Petala* 3 v. 5, tubo stamineo mediante connata; *inferiore* discreto, carinato. *Stigma* bilabiatum. *Capsula* compressa, 2-locularis, 2-valvis. *Semina* solitaria, arillata.
Herbæ, suffrutices, v. rariùs arbusculæ per orbis temperatos communia. Folia *alterna v. opposita.* Flores *plerumque terminales, racemosi.*

P. *thesioides*, floribus cristatis racemosis, alis spathulatis 5-nerviis petalis longioribus, capsulâ orbiculatâ emarginatâ sessili, seminibus glabris, foliis lineari-subulatis confertis, caule suffruticoso pubescenti.
Polygala thesioides. *Willd. sp. pl.* 3. *p.* 877. *Dec. prodr.* 1. *p.* 327.
P. gnidioides. *Willd. sp. pl.* 3. *p.* 878.
Polygala cœrulea, angustis et densioribus foliis, vulgò Clin-clin. *Feuill. peruv.* 1. *p.* 721. *t.* 13.

Plant suffruticose, about a span high, with many straight, filiform, simple, spreading, dark-purple, copiously pubescent branches. *Leaves* crowded, somewhat imbricate, rather inclined to one side, about a nail long, narrow, linear, somewhat awl-shaped, slightly mucronulate, compressed, coriaceous, underneath furnished with a shallow furrow, of a dark green, and rather glossy, clothed with numerous white dots and short, papillose hairs. *Footstalks* very short, rather adpressed, shining, of a dark purple. *Flowers* crested, racemose. *Raceme* terminal, solitary, about an inch long, of from 5 to 10 flowers. *Pedicels* very short, rather club-shaped, smooth, of a violet colour above, whitish beneath. *Bractes* 3, lanceolate, rather acute, concave, membranous, caducous; the intermediate one larger and green. *Calyx* persistent, 5-leaved; 3 outer leaves lanceolate, somewhat acute, concave, green, with a white, membranous border; 2 inner ones (wings) spathulate, 5-nerved, of a dull violet colour, tinged

with green, paler towards the edges, the apex involute and veiny, minutely pubescent at the base within. *Petals* 3, shorter than the wings, closely united at the base; lateral ones ligulate, obtuse, somewhat falcate, pubescent on their upper surface, and folding over each other, so as to give the corolla a bilabiate appearance, of a deep blue, paler below, and marked with deeper spots; the intermediate one thick and fleshy, greenish, 3-lobed, with a short claw, cullulate, with the 2 lateral lobes short, nearly triangular, and converging; the central one divided into numerous, narrow, blunt, almost filiform, and often forked segments, of a pale blue, those near the margin confluent. *Stamens* 8. *Filaments* united, membranous, white, attenuated towards the apex, rather fleshy and bearded within at the base, separated at the top into 2 bundles of 4 each. *Anthers* yellow, unilocular, tubular, opening with an oblique, wide mouth, having the border spreading and somewhat revolute. *Style* clavate, smooth, transversely compressed, with a narrow bend at the middle. *Stigma* a yellow, recurved gland. *Capsule* flat, orbicular, sessile, 2-celled, cloven at the top, with a narrow, membranous, slightly torn border. *Seeds* solitary, cylindrical, smooth. *Arillus* tripartite, fleshy, white, with linear blunt segments.

This pretty little *Polygala* is a native of Valparaiso, in Chile, whence it was introduced last year from seeds collected in that country by Mr. Hugh Cuming. The plant appears to delight in a sandy soil, and may be increased both by cuttings and seeds. According to Feuillée, it is a powerful diuretic, and is used by the Indians, who name it "Clinclin," in a simple infusion, which is allowed to stand for a whole night before it is taken.

There is, most probably, some mistake in the habitats given by Willdenow of this and his *gnidioides;* for although we have seen no sample of the latter, we have little doubt of their identity.

Our drawing was taken at Mr. Knight's Nursery, in July last.

The generic name alludes to the belief of the effects of the common kind in inducing a larger secretion of milk, and is derived from πολυ, much, and γαλα, milk. *D. Don.*

1. Calyx. 2. Bractes. 3. Wing. 4. Stamens. 5. Capsule. 6. Leaf a little magnified.

Lith. Pedgway 16 Piccadilly N.

FÚCHSIA macrostèma; *var.* globòsa.

Balloon-flowered Fuchsia.

Linnean Class and Order. OCTANDRIA MONOGYNIA.
Natural Order. ONAGRARIÆ. *Juss. in ann. mus.* 3. *p.* 315. *Dec. prodr.* 3. *p.* 35.
FUCHSIA. Suprà fol. 16.

F. *macrostema*, glabra; foliis oppositis ternisve petiolatis ovatis acutis denticulatis, floribus axillaribus solitariis, petalis subrotundis, staminibus productis, stigmate quadrilobo.
Fuchsia macrostema. *Ruiz et Pavon fl. peruv. et chil.* 3. *p.* 88. *t.* 324. *f. b. Lodd. bot. cab. t.* 1062. *Dec. prodr. p.* 37. *G. Don gen. syst. of gard. and bot.* 2. *p.* 677.
Thilco. *Feuill. peruv.* 2. *p.* 64. *t.* 47.
β *conica*, foliis ternis ovatis denticulatis ramulisque glabris, calycis limbo æstivatione conico, stigmate lobis connatis.
F. conica. *Lindl. in bot. reg. t.* 1062.
γ *globosa*, foliis ternis ovatis denticulatis ramulisque glabris, calycis limbo æstivatione globoso, stigmate lobis connatis.
F. globosa. *Lindl. in bot. reg. t.* 1556.
δ *gracilis*, foliis oppositis ternisve lanceolatis denticulatis subtùs ramulisque puberulis, calycis limbo æstivatione elongato subulato, stigmate lobis connatis.
F. gracilis. *Lindl. in bot reg. t.* 847.
F. decussata. *Graham in edinb. phil. journ.* 11. *p.* 401. *Sims in bot. mag. t.* 2507.

This is a dwarf, spreading Shrub, rarely exceeding 2 feet in height, with nearly horizontal branches, of a purple colour, and shining; the whole plant is devoid of hairs, except the very young branches, which are sparingly clothed with short pubescence. *Leaves*, either opposite or in threes, on short purple footstalks, ovate, pointed, finely and copiously toothed, glabrous, about an inch long, rather paler beneath, with the veins and midrib partially stained with purple. *Stipules* 2 minute, fleshy teeth. *Flowers* copious, pendulous, on filiform, smooth, red peduncles, which are double the length of the calyx, resembling, when unexpanded, so many little

red balls, of a globular form, and pointed. *Calyx* of a rich crimson, with ovate-lanceolate, acuminate, segments, thrice the length of the cylindrical tube, which in this variety is unusually short. *Petals* broad and rounded, with a very short and contracted claw, convolute, of a purple lilac, twice shorter than the calyx. *Filaments* slender, red and glabrous. *Anthers* rounded-oval, incumbent, of a pale rose colour. *Ovarium* oblong, cylindrical, green. *Style* filiform, glabrous, thicker and longer than the filaments. *Stigma* thick and pyramidal, crimson, lobed at the top, the surface irregular and minutely tuberculate.

This is a garden production, having, we believe, been first raised by Mr. Bunney, from seeds of F. *conica*. It far exceeds in beauty any of the numerous other varieties of this extremely variable species; its dwarf, spreading habit, with the branches less encumbered by foliage, advantageously displays its numerous elegant, and brilliant-coloured blossoms, which are produced successively from March to December. The plant succeeds very well in the open border during the Summer and Autumn, thrives in any light loamy soil, and is easily increased by cuttings.

The proneness to variation evident in this, as well as in the species of many other genera of South American plants, has convinced me that F. *gracilis* and *conica* are not entitled to be regarded in any other light than as mere varieties of F. *macrostema*. The F. *gracilis* is stated to have been introduced from Mexico; but, if really so, it must have been from some garden, for we believe there is no species with projecting stamina found in the northern hemisphere. The plant collected by Captain King in the Straits of Magellan belongs also to the present species, and is evidently the *Thilco* of Feuillée. I have seen no native specimen of F. *coccinea* of the gardens, which, however, is certainly distinct, and is most probably from some part of the Straits not lately explored by any botanist.

Our drawing was taken at Mr. Dennis's Nursery, in August last.

The generic name is already explained at fol. 16. *D. Don.*

1. Petal. 2. Pistil.

J. Stark del. Pub. by J. Ridgway 169 Piccadilly Dec 1. 1835. F.W. Smith sc.

CLÉMATIS campaniflora.

Bell-flowered Virgin's Bower.

Linnean Class and Order. POLYANDRIA POLYGYNIA.
Natural Order. RANUNCULACEÆ. *Juss. gen. p.* 231.
CLEMATIS. Calyx 4-8-phyllus, coloratus, æstivatione valvatâ. *Petala* nulla. *Carpella* plurima, stylo persistenti elongato coronata.
Radix *perennis, fibrosa.* Caulis *herbaceus v. suffruticosus, plerumque scandens.* Folia *opposita, rarò indivisa.* Involucrum *quandoque adest calyciforme.*

C. *campaniflora,* foliis biternato-pinnatis: foliolis ovatis mucronulatis glabris, pedunculis solitariis, floribus campanulatis, sepalis ovato-oblongis acutis margine apiceque revolutis.
Clematis campaniflora. *Brot. fl. lusit.* 2. *p.* 359. *Decand. syst.* 1. *p.* 161. *prodr.* 1. *p.* 9. *Lodd. bot. cab. t.* 987. *G. Don gen. syst. gard. and bot.* 1. *p.* 9.

A slender climbing Shrub, with filiform, slightly angular, green, pubescent, stems, rising to the height of six feet or more. *Leaves* biternately pinnate. *Leaflets* ovate, or ovate-oblong, mucronulate, entire, or occasionally with 2 or 3 lobes, smooth and shining on both sides, dotted beneath, from half an inch to an inch long, fringed at the margin with short hairs; the terminal ones smaller. *Petiole* and *rachis* narrow, almost filiform, pubescent, channelled above. *Flowers* comparatively small, solitary, campanulate, fragrant, white, with occasionally a slight shade of purple. *Peduncles* filiform, pubescent, an inch or an inch and a half long. *Sepals* 4, ovate-oblong, connivent at the base, little more than half an inch long, with the edges thinner and folded back, the apex rather acute and revolute. *Filaments* linear-cuneate, compressed, pale green, occasionally furnished with a few hairs. *Anthers* longer than the filaments, obtuse, the cells narrow, white, attached to the edge of a broad green connectivum. *Ovaria* ovate, compressed, and together with the long awl-

shaped style clothed with adpressed silky hairs. *Stigmas* blunt, pruinose.

This very distinct species was discovered by the late Professor Brotero in hedges on the road leading from Coimbra to Oporto, flowering in June and July, and first recorded by him in the work above referred to. Its habit is entirely that of C. *viticella*, to which it also comes nearest in affinity, but the much smaller flowers, and pointed sepals, connivent below, will readily distinguish it.

Our drawing was taken in the end of July last, at the Chelsea Botanic Garden, to which it had been sent from the Royal Gardens at Berlin, under the name of C. *viornoides*.

The plant appears to be perfectly hardy, and may be increased both by layers and seeds.

The generic name is derived from κλημα, a vine branch, in allusion to the climbing habit of most of the species of this genus. *D. Don*.

1. Stamen. 2. Pistils. 3. Carpels.

[illegible] Pub. by J. [illegible] Dec. 1. 1833. F. W. Smith

GÍLIA aggregàta.

Tufted-flowered Gilia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. POLEMONIACEÆ. *D. Don in edinb. phil. journ.* 1822. *p.* 56.

GILIA. Calyx tubulosus, 5-fidus, membranaceus. *Corolla* infundibuliformis, limbo 5-loba: *laciniis* sæpiùs obovatis, integris. *Stamina* fauci inserta, rarò inclusa. *Antheræ* oblongæ, erectæ. *Capsulæ loculis* polyspermis. *Semina* angulata. *Radicula* cotyledonibus brevior.

Herbæ (Americanæ) *annuæ.* Folia *plerumque alterna, pinnatifida.* Flores *pedunculati, subsolitarii v. fasciculati.*

G. *aggregata,* foliis pinnatisectis: segmentis linearibus mucronatis, floribus fasciculato-paniculatis, corollæ tubo calyce 5-plò longiori: laciniis ovato-lanceolatis acuminatis canaliculatis.
Gilia aggregata. *D. Don in edinb. phil. journ.* 1822.
G. pulchella. *Dougl. Mss. Bentham in bot. reg. fol.* 1622. *ad calcem.*
Cantua aggregata. *Pursh fl. amer. septentr.* 1. *p.* 147. [*affirmante exemplario archetypo in Herb. Lamb.*]
Ipomopsis elegans. *Lindl. in bot. reg. t.* 1281.

Root fibrous, biennial. *Stem* erect, rising to the height of 3 feet, with stiff filiform branches, copiously clothed with short glandular pubescence, intermixed with long, jointed, spreading hairs, hoary, especially in native samples. *Leaves* alternate, spreading, somewhat recurved, deeply pinnatifid, occasionally undivided and lanceolate; segments linear, with a rather broad, convex midrib, terminated by a cartilaginous point; the terminal one considerably longer. *Flowers* copious, fasciculate, often disposed in a diffuse panicle. *Peduncles* rounded, minutely glandular. *Bractes* subulate, pointed, recurved, longer than the peduncles. *Calyx* campanulate, 5-cleft, 5-ribbed, with the interstices finely membranous; segments awl-shaped, pointed, erect, furnished at the base with a broad, scariose margin. *Corolla* funnel-shaped, glandular, carmine; tube narrow, an inch long, five-sided; the limb 5-cleft, shorter than the tube; segments ovate-lanceolate, acuminate, recurved and spreading, concave, with in-

volute edges, and together with the mouth marked with numerous irregular white spots; the æstivation induplicate, and but slightly involute. *Stamens* 5, inserted in the mouth of the corolla, alternating with the segments, exserted. *Filaments* capillary, purple. *Anthers* oblong, yellow, with parallel cells, free at the base, and opening lengthways. *Style* capillary, red. *Stigmata* 3, linear, obtuse, compressed, recurved and pruinose. *Ovarium* oblong-elliptical, 3-celled, seated on a glandular disk. *Ovula* angular, several in each cell.

A native of the North-west Coast of America, whence it was introduced to the Garden of the Horticultural Society, by Mr. Douglas, in 1827. On a careful comparison of the native sample in Pursh's Herbarium, collected by Captain Lewis, at Hungry Creek, in 1806, which, although but partially developed, and more copiously clothed with hairs than the cultivated ones, we are satisfied that there cannot be a doubt as to the identity of the two plants. It appears to delight in a loamy soil, and is increased by seeds. When in blossom, few plants of this family surpass it in beauty. It is very nearly related to G. *coronopifolia*, but differs in its more copious pubescence, and in the narrower, concave, acuminate, segments of its corolla. Our drawing was taken from Mr. Knight's collection, in July last.

The *Phlox pinnata* of Cavanilles, formerly referred by me to this genus, with which its habit more particularly agrees, I am now convinced belongs to *Collomia*, from its stamens being inclosed within the tube of the corolla, and from the monospermous cells of its capsule.

The *Polemoniaceæ* evidently constitute an osculant group, connecting the *Bignoniaceæ*, *Apocyneæ*, *Hydrophylleæ*, and *Convolvulaceæ*, the parts of the flower affording likewise an example of almost perfect symmetry. In its flat winged seeds, foliaceous embryo, arborescent stem, and large funnel-shaped blossoms, *Cantua* emulates some members of the former family, while the opposite entire leaves, corymbose inflorescence, and twisted æstivation of *Phlox* forcibly remind us of some *Apocyneæ* and *Gentianeæ*, and by means of *Polemonium* the transition to *Hydrophylleæ* is clearly made out.

The genus was named by Ruiz and Pavon after Signor Gil, author of phytological observations on some exotic plants cultivated about Rome. *D. Don.*

1. Style. 2. Corolla. 3. Ovarium.

J. Hart del.

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F.W. Smith

SÁLVIA angustifolia.

Narrow-leaved Sage.

Linnean Class and Order. DIANDRIA MONOGYNIA.
Natural Order. LABIATÆ. *Juss. gen.* 110.
SALVIA. Suprà fol. 59.

S. *angustifolia*, herbacea; foliis subsessilibus lineari-cuneatis dentatis glaucis, verticillastris remotis paucifloris, calycibus tubulosis hispidis tridentatis.
Salvia angustifolia. *Cavan. ic.* 4. *p.* 9. *t.* 317. *Vahl en.* 1. *p.* 255. *Rœm. et Schult. syst.* 1. *p.* 222. *Bentham in bot. reg. t.* 1554. *labiat. p.* 249.
S. virgata. *Orteg. dec.* 1. *p.* 3.
S. reptans. *Jacq. hort. Schœnbr.* 3. *p.* 38. *t.* 319.

Stem erect, slender, from a foot to three feet high, branched, bluntly 4-sided, sparingly furnished with rough bristly hairs, bearded at the joints. *Leaves* linear, acute, with a few shallow teeth, flat, glaucous, an inch to two inches long, attenuated towards the base; the lower ones rather cuneiform. *Racemes* long, thin. *Verticills* of from 2 to 5 flowers. *Bractes* ovate-lanceolate, acuminate, caducous, thrice longer than the pedicels. *Calyx* tubular, furrowed, hispid with whitish hairs, with 18 prominent ribs, partly stained with violet; the teeth three, ovate, acuminate, upper one broader. *Corolla* of a deep azure, twice longer than the calyx; tube ventricose, rather longer than the calyx; upper lip concave, erect, entire, pubescent; lower one twice longer, with rounded lobes, the middle one very broad, reniform, spreading, notched. *Stamens* shorter than the corolla. *Connectivum* linear, adnate, toothed behind. *Style* scarcely exserted, with two lines of hairs. *Stigma* forked; the lower lobe elongated, awl-shaped.

A native of dry mountainous places in the temperate parts of Mexico, whence it was introduced into the Royal Gardens at Madrid, in 1795. It grows well in any light soil, is readily increased both by seeds and cuttings, and requires protection in Winter, being no more than an annual, if kept in the open border.

Our drawing was derived from Mr. Dennis's Nursery, at Chelsea, in August last.

The generic is already explained at fol. 59. *D. Don.*

1. Calyx split open. 2. Stamens. 3. Style.

J. Hart. del. Pub. by J. Ridgway 169 Piccadilly Dec 1. 1833. F. W. Smith sc.

CALCEOLÁRIA sessilis.

Fragrant Slipperwort.

Linnean Class and Order. DIANDRIA MONOGYNIA.
Natural Order. SCROPHULARINÆ.
Trib. V. CALCEOLARIEÆ.

CALCEOLARIA. Calyx 4-partitus, æstivatione valvatâ! *Corolla* irregularis, bilabiata: *labiis* margine involutis, saccatis; *superiore* quandoque minimo v. obsoleto. *Stamina* 2, fundo corollæ inserta. *Antheræ* biloculares: *loculis* ventricosis divergentibus, longitudinaliter dehiscentibus, apice confluentibus: *septo* elevato, membranaceo. *Stigma* indivisum, subpeltatum, minutè papillosum. *Capsula* conica, bilocularis, bivalvis: *valvulis* crustaceis, apice bifidis, marginibus revolutis, placentiferis, septum contrarium duplicatum constituentibus. *Semina* ovata, minuta, lævia, fulva, numerosissima, umbilico mucroniformi, funiculo umbilicali suffulta: *testâ* membranaceâ: *albumen* parcius, carnosum. *Embryo* teres, rectus: *radiculâ* cotyledonibus longiori, centripetâ.

Herbæ *v.* suffrutices (Amer. Austr.) *glanduloso-pubescentes*, foliis *oppositis sæpiùs indivisis*, floribus *terminalibus plerumque corymboso-paniculatis sæpiùsque flavis.*

Obs. Genus, cujus affinitas adhuc dubia sistit, omninò osculans videtur inter Scrophularinas et Gesneriaceas; his calycis æstivatione valvatâ, capsulæ valvulis revolutis placentiferis, seminibus minutissimis funiculo umbilicali longiori præditis, habitu inflorescentiâ foliisque oppositis plerumque rugosis crenatis; illis antheris bilobis apice confluentibus, seminibus albuminosis convenit. C. petioalaris aliæque in hortis proferunt quandoque corollæ tubulosæ sub-regulares! *D. Don. Mss.*

C. *sessilis*, suffruticosa; foliis sessilibus lanceolatis acuminatis crenatis rugosis subtùs incanis, cymis paniculatis, corollæ labiis subæqualibus ventricosis styloque elongato glandulosis.

Calceolaria sessilis. *Ruiz et Pavon fl. peruv. et chil.* 1. *p.* 18. *Syst.* 1. *p.* 332. *Lindl. in bot. reg. t.* 1628.

Stem upright, suffruticose, branched, from a foot to two feet high, of a grey colour, the branches erect and downy. *Leaves* sessile, with rather a broad base, lanceolate, acuminate, crenate and slightly revolute at the border, an inch and a half long, wrinkled and scabrous above with elevated points, veiny and hoary beneath; those of the branchlets narrow and almost linear. *Flowers* cymose, crowded into a thyrsiform panicle. *Peduncles* filiform, copiously clothed with short glandular hairs. *Bractes* leafy, ovate-lanceolate, acute, yellowish, crenate, upper ones entire. *Calyx* yellow

divided into 4, broad, elliptical, obtuse, unequal, spreading, lobes. *Corolla* of a sulphur colour, composed of two nearly equal inflated lips, covered with glandular pubescence; the lower lip rather larger, with the inner edge truncate and fleshy. *Filaments* 2, compressed, stout, glandular. *Anthers* cream-coloured, of 2 spreading lobes, confluent at the top. *Ovarium* short, conical, and like the style copiously glandular. *Style* compressed, longer than the stamens, and thrice longer than the ovarium. *Stigma* small, peltate.

We willingly follow Dr. Lindley in considering this the C. *sessilis* of Ruiz and Pavon, as it agrees very well with the meagre description given of that species in the *Flora peruviana*, and as there exists no authentic sample of the plant to determine the point with greater certainty.

It is nearly related to C. *integrifolia*, and like it pretty generally diffused throughout Chile. We have examined native specimens from Mr. Caldcleugh, Mr. Bridges, and Mr. Cuming. The leaves being hoary beneath and broader at the base, the nearly equal lips of the corolla and copiously glandular style readily distinguish it from *integrifolia*. The flowers are fragrant, with a faint resemblance to that of the garden hyacinth, a circumstance we have not remarked in the *integrifolia*.

We are indebted to Mr. Knight, of the Exotic Nursery, King's Road, Chelsea, for the fine specimen whence our drawing was taken. It had been raised from seeds collected in Chile by Mr. Cuming. It requires a light sandy soil, and is easily increased by seeds and cuttings.

This genus evidently forms an osculant group between the two families of *Scrophularinæ* and *Gesneriaceæ*, bearing rather a stronger affinity to the latter than to the former, the albuminous seeds being the only point in which they differ.

The generic name alludes to the resemblance of the corolla to a sabot, and is derived from *calceolus*, a little shoe. *D. Don.*

1. Calyx. 2. Corolla.

CORRECTIONS in No. LII. for SEPTEMBER.

Fol. 205. *ALSTRŒMERIA aurantiaca.*

On a careful reconsideration of this article, we are now satisfied of the plant being identical with A. *versicolor* of Ruiz and Pavon (*fl. peruv. et chil. p.* 59.), which name must therefore supersede our own. Whether the serrated sepals in A. *hæmantha* afford a sufficiently permanent character to establish it as distinct from this species, further observations must determine. In the variety *Simsii* (Tab. 267. Series 1.) the sepals are nearly entire.

Fol. 206. *COLLOMIA lateritia.*

This name must give place to that of *coccinea*, applied to it by Lehmann, of which we were not aware at the time of publication. In the specimen figured by Dr. Lindley at Tab. 1622 of the Botanical Register, the flowers are larger than in ours, and the tube of the corolla considerably longer than the calyx, which clearly establish their identity with the *Phlox linearis* of Cavanilles, and consequently with C. *Cavanillesii* of Hooker and Arnott.

N. B. The Numbers of the Plates of *Alstrœmeria versicolor* and *Platycodon grandiflorum* have been inadvertently transposed.

Pub. by J. Ridgway

VERBÈNA sulphùrea.

Sulphur-coloured Vervain.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. VERBENACEÆ. *Brown prodr.* 1. *p.* 510.
VERBENA. Suprà fol. 9.

V. *sulphurea*, diandra, procumbens, subsericea; foliis multifidis: segmentis linearibus obtusis margine revolutis, spicâ capitatâ, corollis glabris: laciniis flaccidis bilobis.

Plant perennial, tufted, canescent, with rough spreading hairs. *Stems* many, procumbent, leafy, acutely quadrangular, a span long. *Leaves* sessile, opposite, deeply pinnatifid, about an inch long, the segments linear, obtuse, revolute at the margin, sometimes falcate. *Flowers* of a sulphur colour, larger than in V. *multifida*, thickly arranged in a capitate spike. *Peduncles* from 2 to 3 inches long, erect. *Bractes* lanceolate, acuminate, shorter than the calyx, clothed with bristly hairs. *Calyx* tubular, bristly, with 5 angles, and 5 teeth; the teeth upright, awl-shaped, pointed, unequal, folded. *Corolla*, the tube rather longer than the calyx, perfectly glabrous, both within and without, slightly ventricose at the apex; limb spreading, 5-parted, the segments oblong, wedge-shaped, cloven, rather flaccid, 2 lower ones narrower. *Stamens* 2, inserted in the mouth of the corolla, exserted. *Filaments* very short, compressed, smooth. *Anthers* large, purple. *Ovarium* smooth. *Style* compressed, green, dilated upwards, with the sides rather produced beyond the glanduliferous stigma.

This pretty little Vervain was raised from Chilian seeds received from Mr. Hugh Cuming, by our friend, Mr. William Christy, Junior, to whom we are indebted for the spe-

cimen here figured, which blossomed in his collection at Clapham, in the beginning of August last. The plant is apparently perennial, and forms a close spreading patch. It appears to prefer a loamy soil, and grows luxuriantly in the open border during Summer, but requires the protection of a pit or frame in Winter. Cuttings of it root very readily.

Nearly related to V. *crithmoides* and *radicans* of Gillies and Hooker, but differs from the former in its glabrous corolla, with the tube not much longer than the calyx; and from the latter by its hairy stems, narrower segments of its leaves, and shorter flowers.

The generic name is already explained at fol. 9. *D. Don.*

1. Bractea. 2. Calyx. 3. Corolla laid open. 4. Stamen. 5. Pistil.

J. Bart del.

Pub by J. Ridgway 169 Piccadilly Jan 1 1824.

F. W. Smith

ADÉSMIA uspallatensis.

Thorny Adesmia.

Linnean Class and Order. DECANDRIA MONOGYNIA.
Natural Order. LEGUMINOSÆ. *Juss. gen. p.* 345.
ADESMIA. Calyx 5-fidus, laciniis acutis sub-æqualibus. *Corolla* papilionacea, vexillo juniore super alia petala complicato, carinâ apice curvo-truncatâ. *Stamina* distincta, approximata. *Legumen* compressum transversè pluri-articulatum, suturâ superiore subrectâ crassiusculâ, inferiore sinuato-lobatâ, articulis 1-spermis demùm secedentibus suborbicularis. *Semina* compressa reniformi-orbiculata.

Herbæ (v. suffrutices) Australi-Americanæ. Stipulæ *lanceolatæ*. Folia *abruptè pinnata; petiolo in setulam producto.* Pediculi *axillares* 1-*flori et foliorum superiorum abortu in racemum terminalem dispositi.* Decand. prodr. 2. p. 318.

A. *uspallatensis*, fruticosa, spinosa; foliolis 5-jugis ovalibus obtusis glabris, dentibus calycinis semiovatis acutis reflexis, lomentis 2-3-articulatis, setosis: setis plumosis.
Adesmia uspallatensis. *Gill. Mss. Hook. and Arnott in bot. misc.* 3. *p.* 192.

An upright, branched, thorny shrub, seldom exceeding a foot in height, with round smooth branches; the thorns, which are abortive peduncles, are terminal, forked, with straight simple awl-shaped divisions. *Leaves* rather fasciculate, abruptly pinnate, leaflets mostly in 5 pairs, oval, obtuse, channelled, glabrous, scarcely 2 lines long. *Racemes* terminal, few-flowered. *Peduncles* short, capillary, slightly pubescent. *Calyx* short, campanulate, slightly pubescent, 5-toothed; teeth very short, semi-ovate, acute, ciliated, reflexed, equal. *Corolla* papilionaceous, of a rich yellow colour; vexillum nearly orbicular, reflexed, the front of a deep yellow, marked with dark red lines, behind of a livid hue, the base within bearded with white down; wings semicordate, nearly equal the length of the keel, with downy claws; keel cucullate, ventricose, with the apex truncate

and emarginate, the suture below bursting, with downy edges. *Stamens* 10, separate. *Filaments* awl-shaped, white, smooth, flat, and broader at the base; the tenth shorter. *Anthers* round, yellow. *Ovarium* compressed, villous. *Style* flattened, attenuated upwards. *Stigma* compressed, nearly orbicular, pruinose. *Pod* composed of 2 or 3 semi-orbicular, compressed, one-seeded joints, ornamented with long spreading purple feathery hairs.

A singular genus, nearly related to *Hedysarum*, but differing essentially in the separation of the stamens. The species are peculiar to South America, and their number has been much increased of late by the discoveries of Dr. Gillies and Mr. Cuming, recorded in the third volume of the Botanical Miscellany.

The one now before us forms a dwarf thorny shrub, rarely exceeding a foot in height. It evidently varies a good deal in the number of its leaflets, and also in other minor points; circumstances which dispose us to hesitate in recognizing as distinct species the A. *horrida* and *trijuga*.

Our drawing was taken in July last, at the Botanic Garden, Chelsea, where the plant had been raised from seeds, collected in Chile, by Mr. Cuming. The plant requires protection in Winter, is fond of a light loamy soil, and may be increased by cuttings.

The pods, when full grown, are particularly pretty, from the long feathery hairs with which they are adorned.

The generic name has reference to the separation of the stamens, and is compounded of *a* privative, and δεσμος, union. *D. Don.*

1. Leaf. 2. Peduncle and Calyx. 3. Vexillum. 4. Wing. 5. Keel. 6. Stamens. 7. Pistil. 8. Bristles of the lomentum.

Pub. by J. Ridgway & Sons, Ludgate Hill, Jan. 1. 1834.

FRANCÒA ramòsa.

White-flowered Francoa.

Linnean Class and Order. OCTANDRIA MONOGYNIA.
Natural Order. GALACINÆ. *D. Don in Edinb. Phil. Journ. Dec.* 1828. *p.* 53.
FRANCOA. Suprà fol. 151.

F. *ramosa*, segmentis calycinis ovato-lanceolatis acutis læviusculis, staminibus sterilibus obtusis, stigmatibus cuneatis bilobis, scapo ramoso.
Francoa ramosa. *D. Don in l. c. p.* 52.

Plant perennial. *Caudex* very short, round, about the thickness of a writing quill, and from 2 to 3 inches high; clothed with soft spreading hairs. *Scape* from a foot and a half to 3 feet high, erect, branched, cylindrical, green, the base densely pilose, becoming glabrous and shining towards the top. *Branches* slightly angular, shining, from a span to a foot long. *Leaves* lyrate, pale green, thickly clothed with soft hairs, from 3 to 7 inches long, wrinkled above, paler and varicose beneath, the segments opposite, rounded, sinuately lobed and toothed, wavy and curled, with the base abruptly cordate, the terminal one large, cordate-oblong, obtuse, sinuately lobed, waved, cucullate at the base, with the posterior lobes connivent. *Footstalks* very short, winged, a little decurrent at the base, with a stout midrib, which is broader at the base, flat above, and convex beneath. *Flowers* in a spiciform raceme, erect, smaller than those of the other species, white, or occasionally having a faint tinge of rose colour. *Pedicels* very short, smooth, slightly angular. *Bractes* linear, acute, longer than the pedicels, and sometimes slightly fringed. *Calyx* smooth and shining, four, or rarely five cleft, the segments ovate, acute, or acuminate, faintly 3-nerved. *Petals* 4, or rarely 5, twice the length of the calyx, obovate, obtuse, bluntly keeled, with a stout midrib, with branching veins, the claw very short and folded. *Sta-*

mens 16, or rarely 20, the outer half sterile and very short, cylindrical, blunt, yellowish, with the apex slightly recurved; the inner ones alternating with the outer ones, and thrice longer, fertile, awl-shaped, smooth, of a faint rose colour. *Anthers* pale purple, oblong, square, obtuse, 2-celled, the cells parallel, opening lengthways, with prominent valves. *Ovarium* 4-celled, the cells alternating with the lobes of the calyx. *Style* none. *Stigmata* rounded, almost orbicular, entire or lobed, green, but afterwards changing to purple.

This species grows abundantly on the hills near Valparaiso, in Chile, and was first described in the work above referred to, from specimens gathered by my valued friend, Mr. Caldcleugh. It has been also collected by Mr. Cuming and Mr. Bridges, and to the former we are indebted for its introduction to the gardens, many plants of it having been raised from seeds communicated by him.

We have to thank Mr. Knight, of the Exotic Nursery, King's Road, Chelsea, for the specimens whence our drawing was derived. They blossomed in his choice collection in July last. The plant appears to thrive best in a mixture of sandy peat and loam, and is readily increased by seeds, which it perfects abundantly. We have nothing to add to the account of the genus given at fol. 151 and 155. *D. Don.*

1. Calyx. 2. Stamen. 3. Pistil. 4. Capsule.

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PETROMÁRULA pinnàta.

Wing-leaved Candiot Rampion.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. CAMPANULACEÆ. *Brown prodr.* 1. *p.* 559.
PETROMARULA. Calyx 5-fidus. *Corolla* 5-partita. *Stamina* 5, lobis corollæ alterna; filamentis basi latis, antheris longioribus, polline violaceo. *Stylus* glaber. *Stigma* capitatum, crassum, pilosiuculum. *Ovarium* 3-loculare, inferum. *Capsula* erecta, poris 3 ad media partem lateraliter depiscens.

Herba Cretæ incola, *foliis radicalibus primò petiolatis ovato-acutis, deinde pinnatis, petiolis marginatis et lobatis; floribus laxè racemosis, pedicellatis.* Alph. Decand. Monogr. Campan. p. 209.
P. pinnata.

Petromarula pinnata. *Persoon Syn.* 1. *p.* 194. *Alph. Decand. l. c. p.* 209.
Phyteuma pinnata. *Linn. sp. pl.* 1. *p.* 242. *Lam. ill. n.* 2591. *Willd. sp. pl.* 1. *p.* 295. *Vent. jard. Cels. t.* 52. *Smith prodr. fl. græc.* 1. *p.* 144. *fl. græc. t.* 226. *Ræm. et Schult. syst. veg.* 5. *p.* 86.
Rapunculus creticus, seu Pyramidalis altera. *Bauh. pin. p.* 93. *Tournef. inst.* 1. *p.* 113.
R. creticus, Petromarula. *Bauh. hist.* 2. *p.* 811.
R. creticus seu Petromarula cretica. *Park. theatr. p.* 649. *f.* 5. *Moris. hist. sect.* 5. *t.* 1. *f.* 8.
Petromarula di Candia. *Pon. bald. p.* 96.
P. Rapunculo Candioto. *Imperat. hist. p.* 668.
P. Rapunculum creticum Imperati Valerianæ foliis. *Barr. ic. t.* 1154.

Plant perennial, tufted, abounding in milky juice. *Root* fleshy, fusiform, white. *Stems* erect, branched, from 3 to 4 feet high, or more, about the thickness of one's finger, solid, angular, glabrous, green, fragile, glossy. *Branches* long, erect. *Leaves* stalked, deeply and lyrately cut, almost pinnate, glabrous, green, veiny and paler beneath; the segments ovate, acuminate, stalked, doubly serrate, with large coarse, pointed, spreading teeth, an inch to two inches long, obliquely rounded at the base, rather distant, but approximate in pairs, and often interposed by other minute, lanceolate, almost entire, pointed ones. *Footstalks* whitish, semi-cylindrical, channelled above, with a greenish membranous border, about a span in length. *Flowers* fasciculate, disposed in very long, terminal, loose, spiked racemes. *Pedicels* very short, angular, and, like the bractes and calyx, clothed with minute papillæ. *Bractes* awl-shaped, pointed, entire, rather longer than the pedicels. *Calyx* with 5 awl-shaped, pointed, entire, erect segments;

the tube round and angular. *Corolla* of a pale azure blue, thrice longer than the calyx, deeply parted into 5, linear, acute, channelled, reflexed segments, clothed, but especially towards the base, with papillary pubescence. *Stamens* 5, shorter than the corolla. *Filaments* compressed, of a deep blue, stiff and callous, glossy, broad, spathulate, and papillose at the base, with the edges connivent and closed. *Anthers* linear, bluntly keeled, yellow, of two narrow, parallel cells, opening lengthways. *Ovarium* inferior, of three cells, crowned by a fleshy, glandular, depressed disk. *Style* stout, cylindrical, longer than the stamens, glabrous. *Stigma* large, capitate, of three broad, thick, connivent, blunt, papillose lobes.

This remarkable plant is frequent on the rocky shores and mountainous parts of Candia, and also on mount Baldo in Italy. It appears to have been several times introduced to this country, first in 1640, and more recently by Dr. Pitcairn, in whose rich collection, at Islington, it flowered in 1791; but from the great difficulty attending its culture in this moist climate, it has always continued extremely rare in collections, and we know of none other at present that contains the plant, save that of Messrs. Young, at Epsom, where it blossomed in September last. Mr. Penny, the intelligent foreman of that establishment, informs us, that the plant from which our drawing was obtained, was planted in the open ground in May, in a rich loamy soil, where it grew vigorously, throwing up from 40 to 50 stems, which began to blossom towards the end of August. It requires the protection of a frame or greenhouse in Winter, and is increased slowly by division.

We have, in the mean time, adopted the genus *Petromarula*, as proposed by Persoon and M. Alphonse De Candolle; although it must be confessed, that we have been unable to discover any valid characters whereby to distinguish it from *Phyteuma*. The stigma is not simple, but composed of three lobes, thicker than in the other species of *Phyteuma*, the leaves are merely deeply lobed, and the inflorescence is precisely the same with that of P. *amplexicaule*, but more developed.

The name is compounded of πετρα, a rock, and μαρον, an herb, from the plant growing on rocks. *D. Don.*

1. Calyx and Pistil. 2. Stamen. 3. Segment of the Corolla. 4. Outline of the plant in miniature.

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Hart del. Pub by J. Ringway 119 Piccadilly Feb 1 1834. G. W. Smith.

ZAPPÀNIA nodiflòra; *var.* ròsea.

Pink-flowered Knotted Zappania.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. VERBENACEÆ. *Brown prodr.* 1. *p.* 510.
ZAPPANIA. Calyx 5-dentatus, v. maturitate bivalvis. *Corolla* subinfundibiliformis, bilabiata, labio superiore bilobo, inferiore tripartito, æquali. *Stamina* 4, didynama. *Pericarpium* tenue, evanidum. *Semina* 2. *Flores* capitati. *Brown l. c.* 1. *p.* 514.

Z. *nodiflora*, foliis cuneatis supernè serratis, capitulis conicis, caule herbaceo repente.
Zappania nodiflora. *Brown prodr.* 1. *p.* 514. *Pursh fl. amer.* 2. *p.* 417. *Poiret in Lam. dict.* 8. *p.* 839.
Verbena nodiflora. *Linn. sp. pl.* 1. *p.* 28. *fl. zeyl. p.* 399. *Willd. sp. pl.* 1. *p.* 117. *Swartz obs. p.* 17. *Ait. hort. kew.* 4. *p.* 39.
V. foliis verticaliter ovatis, spicis globosis. *Linn. hort. cliff. p.* 11.
V. foliis verticaliter ovatis, spicis solitariis ovatis. *Roy. lugdb. p.* 327.
V. caule repente, foliis oblongis supernè crenatis, pedunculis solitariis capitatis. *Gron. virg. p.* 7.
V. nodiflora repens, foliis obovatis supernè crenatis, pedunculis longis solitariis, floribus conglobatis. *Brown jam. p.* 116.
V. nodiflora, foliis minoribus viridibus. *Moris. hist.* 3. *p.* 419. *sect.* 11. *t.* 25. *f.* 8.
β. *rosea*, floribus roseis, fauce corollæ aureo.
Verbena nodiflora. *Smith fl. græc. Sibth. t.* 553.
V. nodiflora, capite oblongo. *Barr. ic. t.* 855.
V. nodiflora. *Bauh. pin. p.* 269. *hist.* 3. *p.* 444.
Sherardia repens nodiflora. *Vaill. sex. p.* 49.

Plant perennial, creeping, forming a close flat patch, resembling a good deal in habit *Veronica officinalis*, clothed with very short, adpressed silky hairs. *Roots* long, white, about the thickness of ordinary packthread, and slightly branched. *Stems* round, knotty, creeping, scarcely a span long. *Leaves* opposite, stalked, cuneately ovate, coriaceous, veinless, about half an inch long, toothed at the apex, entire, and attenuated towards the base. *Footstalks* scarcely half the length of the leaves, channelled above. *Peduncles* axillary, solitary, erect, cylindrical, an inch iong, rather thicker at the apex. *Spike* capitate, rounded, scarcely half an inch long. *Bractes* ovate mucronate, bluntly keeled, silky, green, closely imbricated. *Calyx* pale green, membranous, compressed, transversely bilabiate, or rather 2-valved, valves collateral, with a fringed

keel; the lobes very short, blunt, entire, or obliquely notched, purple. *Corolla* pink, furnished at the mouth with an orange spot, which is deeply notched in front; the tube double the length of the calyx, paler than the limb, smooth both within and without, widened and compressed at the apex; *limb* 5-lobed, somewhat bilabiate; *lobes* rounded, entire, the 2 upper ones connivent, and much smaller; the lower one larger, reniform, truncate. *Stamens* 4, didynamous, inserted in the mouth of the tube. *Filaments* very short, compressed, smooth. *Anthers* yellow, bilocular, the cells unequal, inserted obliquely into the margin of a rather broad, white, notched connectivum. *Ovarium* bilocular. *Style* round, rather robust, very short, smooth, simple at the apex. *Stigma* peltate, slightly 2-lobed, viscid, yellow.

Like many other maritime plants, this is found in most parts of the world. In Europe, it extends northward to about the 40th degree; but, in America, its northern limits are considerably within that line. The plant represented in our plate, was introduced from Chile, by Mr. Hugh Cuming; but we cannot perceive any essential difference between it and the variety figured in *Flora Græca*, and by Barrelier, which is distinguished from the other variety by its larger pink flowers.

The plant is perennial, with creeping stems, forming a compact patch, which, when in flower, has a very pretty effect, being then adorned with innumerable heads of pink blossoms, marked with a yellow spot. It is nearly, if not quite, hardy; and is highly ornamental, whether kept in pots, or planted in a rock-work. A mixture of sandy peat and loam will be found to suit it well; and it is easily increased by slips, for almost every branch is supplied with roots. Named by Scopoli, after Paul Anthony Zappa, an Italian Botanist, to whom the public garden at Pavia was indebted for many valuable communications.

Our drawing was derived from Mr. Knight's collection, in July last. *D. Don.*

1. Bracte. 2. Calyx. 3. Corolla laid open. 4. Pistil.

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FABÀGO major.

Greater Bean Caper.

Linnean Class and Order. DECANDRIA MONOGYNIA.

Natural Order. ZYGOPHYLLEÆ. *Brown gen. rem. p.* 545. *Decand. prodr.* 1. *p.* 705.

FABAGO. Calyx 5-phyllus, æstivatione imbricatâ. *Petala* 5. *Stamina* 10. *Filamenta* basi intùs appendiculata. *Stigma* indivisum. *Capsula* prismatica v. 5-alata, 5-locularis, 5-valvis: *loculis* polyspermis. *Semina* duplici ordine medio inserta, compressa: *testâ* crustaceâ, fragili: *albumen* nullum. *Radicula* teretiuscula, curvata, ab umbilico externo remota, supera.

Herbæ (Asiæ et Africæ boreal.) *perennes.* Folia *petiolata, ternata, foliolo terminali plerumque abortivo, v. pinnata.* Stipulæ *membranaceæ, persistentes.* Flores *axillares, solitarii v. gemini.* Hùc forsitan referenda Z. pterocarpum, Melongena, subtrijugum et furcatum, *Ledeb. fl. alt.* D. Don Mss.

F. *major*, foliolis conjugatis obovatis, pedunculis petiolo brevioribus, capsulis prismaticis elongatis, seminibus lævibus subbaccatis.

Zygophyllum Fabago. *Linn. sp. pl.* 1. *p.* 385. *Hort. ups. p.* 103. *Willd. sp. pl.* 2. *p.* 560. *Lam. ill.* 345. *f.* 1. *Ait. hort. kew. ed.* 2. 3. *p.* 40. *Persoon synop.* 1. *p.* 463. *Marsch. à Bieb. fl. taur. cauc.* 1. *p.* 310. *Decand. prodr.* 1. *p.* 705. *Ledeb. fl. alt.* 2. *p.* 105. *G. Don gen. syst. gard. and bot.* 1. *p.* 771.

Fabago Belgarum, sive Peplus Parisiensium. *Dalech. hist. p.* 456. (cum figurâ bonâ.) *Tournef. inst.* 1. *p.* 259.

Capparis Fabaginea, sive Peplios Lutetiorum. *Bauh. hist.* 2. *p.* 66.

C. Portulacæ folio. *Bauh. pin. p.* 480.

C. Fabago. *Dodon. pempt. p.* 747. *Ger. em. p.* 897. *Besl. eyst. æstiv.* 10. *t.* 1. *f.* 1. (mala.)

C. leguminosa. *Lob. ic.* 2. *t.* 5. (pessima.)

Telephium Dioscoridis. *Column. ecphr. p.* 132. *t.* 131. (bona.)

Morgsani. *Rauw. it. t.* 113.

The whole herb smooth, and of a deep green, with the smell and taste of *Capparis spinosa*. *Root* perennial, long, fusiform, white. *Stem* erect, divaricately branched, round and jointed, the joints swollen. *Branches* spreading, semicylindrical, the inner surface flat and channelled. *Leaflets* in a single pair, obovate, or obovate-oblong, entire, fleshy, with unequal sides, from an inch to 3 inches long, ribbed beneath, the veins mostly immersed and invisible; the terminal one nearly abortive, narrow, bristle-shaped, membranous, but, occasionally, in the lower leaves, it is large and obcordate. *Petioles* linear, bluntly keeled below, channelled above, the edges slightly winged, from half an inch to an

inch long. *Stipules* ovate, acute, membranous, persistent. *Flowers* stalked, drooping, axillary, or issuing from the forks of the branches, solitary, or in pairs, sometimes terminating the branches, and then somewhat corymbose. *Peduncles* angular, glabrous, about half an inch long, thickened at the apex. *Calyx* 5-parted, segments oval, obtuse, concave, imbricate in æstivation, the border white, thin, membranous, and slightly torn. *Petals* 5, alternating with and longer than the segments of the calyx, obovate, unguiculate, whitish and torn at the top, the rest of a saffron-colour, and dotted. *Stamens* 10, perigynous. *Filaments* awl-shaped, of a deep saffron-colour, with the points white and attenuated, furnished at their inner base with a flat, linear, saffron-coloured appendage, torn at the top, and about half their length. *Anthers* incumbent, oblong-cordate, mucronulate, of a rich saffron-colour, composed of two parallel connate cells, opening lengthways. *Gynobase* fleshy, depressed, and flattened. *Ovarium* 5-sided, 5-celled, about an inch long. *Style* shorter than the ovarium, awl-shaped, white. *Stigma* very small, blunt. *Ovula* oblong, compressed, inserted in an alternate order, along the margin of the placentæ, which are 5 in number, very narrow, almost filiform, formed by the thickening of the inner edge of the Septa.

This is a very old inhabitant of our gardens, having been cultivated by Gerard, in 1596, but it is still by no means common. It appears to delight in a gravelly loam, and, if properly treated, produces an abundance of flowers, which are both curious and pretty. It is perennial, and quite hardy; and may be increased by division, or by seeds.

Our drawing was taken in July last, at the Botanic Garden, Chelsea, where the plant being favourably placed at the foot of the rock-work, near the edge of a gravel walk, had attained the height of 4 feet, and was then clothed with blossoms.

We willingly follow Mr. Brown in separating this from *Zygophyllum*, from which it is distinguished by several important characters, especially by the position of the radicle, with respect to the hilum. In *Z. macropterum* of Ledebour, the latter character is still more remarkable. This species, which had been named by the illustrious Pallas, *Zygophyllum songaricum*, may be distinguished by the following characters:—

F. *macroptera*, foliis pinnatis, capsulis 5-alatis, seminibus angulatis scabris. The appendages in this and in several other genera of this family, are not to be regarded as a distinct set of organs, but as forming an integral part of the stamina, and exhibiting their partial change from petals. The natural place of the *Zygophylleæ* is clearly between *Rutaceæ* and *Oxalideæ*, to both of which they are related in a nearly equal degree.

The generic name is derived from *Faba*, a bean, meaning a plant resembling the bean, which this does in its leaves. *D. Don.*

1. Sepal. 2. Petal. 3. Two Stamens, with their appendages. 4. Pistil.

J. Hart del. Pub by J. Ridgway 10 Piccadilly Feb 1 1834

CALCEOLÁRIA arachnoídea; *var.* refúlgens.

Refulgent Slipperwort.

Linnean Class and Order. DIANDRIA MONOGYNIA.
Natural Order. SCROPHULARINÆ.—Trib. V. CALCEOLARIEÆ.
CALCEOLARIA. Supra fol. 220.

C. *arachnoidea*, niveo-lanata; foliis oblongo-spathulatis dentatis integerrimisve, floribus cymosis, corollæ labio inferiore orbiculato inflato, ovario styloque glabris.
Calceolaria arachnoidea. *Graham in edinb. phil. journ.* 1828, *p.* 572. *in bot. mag. t.* 2874. *Lindl. in bot. reg. t.* 1454.
δ. *refulgens*, parciùs lanuginosa; foliis ovatis duplicato-serratis, floribus rufescenti-sanguineis.

The whole plant sparingly clothed with soft, intricate, woolly hairs. *Root* perennial, fibrous. *Stem* from a span to a foot high, erect, doubly-forked, round, hollow, purple. *Branches* spreading, filiform. *Leaves*, the radical ones ovate, doubly and coarsely serrated, on winged footstalks, ribbed underneath, and wrinkled above, 3 inches long, and 2 broad. *Flowers* cymose, of a bright rufous red. *Pedicels* slender, filiform, woolly, like the calyx; the segments of the latter broadly ovate, acute. *Corolla*, the upper lip very short, convex, entire; lower one large, inflated, nearly round, entire. *Stamens* 2. *Anthers* pale yellow. *Ovarium* conical, rather shorter than the style, both quite smooth. *Stigma* truncate, pruinose.

This showy production was raised by Mr. Gillen, Gardener to Mr. M'Intosh, at the East India Docks, by cross impregnation with two of the numerous varieties, originated between C. *arachnoidea*, and *corymbosa*. Mr. Gillen sent us specimens of several others equally beautiful, which had been raised by him in the same way. A light rich earth suits

these plants best; and the particular varieties can only be increased by slips from the original stock.

For the explanation of the generic name, see fol. 220.

1. Portion of the Corolla, bearing the Stamens.

E.D. Smith del.
Pub. by J. Ridgway 169 Piccadilly Feb 1 1824
F. W. Smith sc.

PERICÁLLIS Tussilaginis.

Colt's-foot-leaved Pericallis.

Linnean Class and Order. SYNGENESIA POLYGAMIA SUPERFLUA.

Natural Order. COMPOSITÆ. *Adans. fam.* 2. *p.* 103.

Fam. VIII. SENECIONEÆ. *Cass. in journ. phys.* 82. *p.* 131.

PERICALLIS. Involucrum simplici ordine multipartitum, æquale, basi dilatatum, omninò ebracteolatum. *Receptaculum* planum, dilatatum, scrobiculatum. *Flosculi radii* ligulati, fœminei, uniseriales; *disci* hermaphroditi, tubulosi, 5-dentati: *styli ramis* compressis, apice truncatis papillosis. *Antheræ* coalitæ, basi muticæ, appendiculâ membranaceâ coronatæ. *Achenia* erostria, sulcata; in radio compressiuscula, glabra; in disco subteretia, undique papilloso-micantia. *Pappus* capillaris: *radiis* duplici ordine digestis, denticulis scabris, basi solutis, caducis, in flosculo fœmineo paucioribus mox evanidis.

Herbæ v. suffrutices (Ins. Canar.) *foliis cordatis, capitulis corymbosis, radio plerumque purpureo.*

Obs. Genus benè naturale, habitu Tussilaginis, involucro Othonnæ, corollâ Senecionis. *D. Don Mss.*

P. *Tussilaginis,* foliis cordatis angulatis subtùs tomentosis, petiolis basi auritis, capitulis corymboso-paniculatis.

Cineraria Tussilaginis. *L'Herit. sert. angl. p.* 26. *Willd. sp. pl.* 3. *p.* 2078. *Persoon syn.* 2. *p.* 439. *Spreng. syst.* 3. *p.* 548.

Senecio Tussilaginis. *Lindl. in bot. reg. t.* 1550.

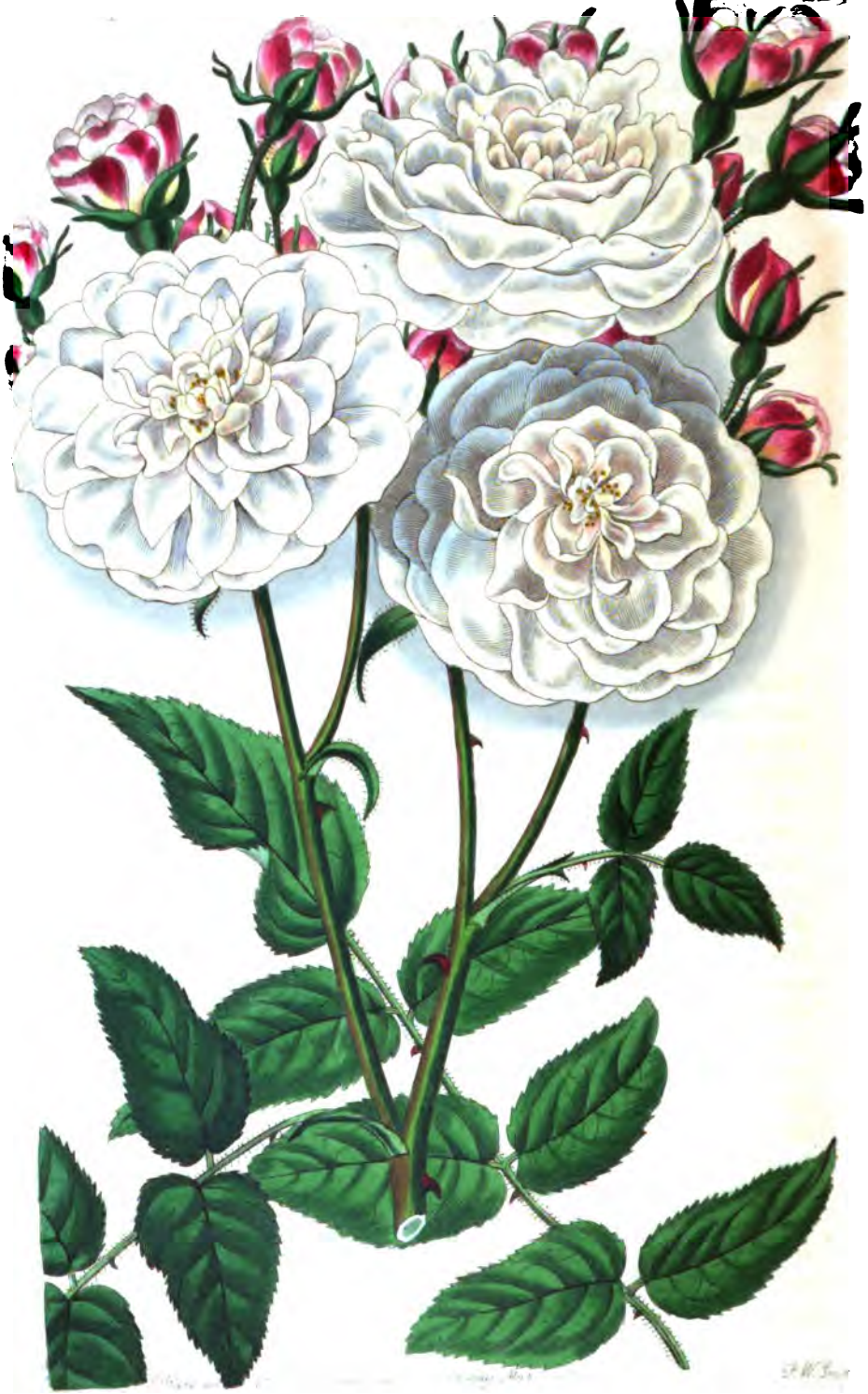
Root fibrous. *Stems* about a foot high, upright, branched, round, solid, striated, becoming quite smooth. *Leaves* cordate, stalked, angular, sharply toothed, ribbed, green, and hairy above, white and woolly beneath; those of the stem rather oblong, acuminate, sharply toothed, 2 or 3 inches in length; upper ones clasping the stem; the uppermost ovate, acuminate, cucullate, membranous, purplish. *Capitula* numerous, in a corymbose panicle. *Pedunclas* round, clavate, nearly glabrous, furnished with a few lanceolate, acuminate, adpressed, membranous bractes. *Involucrum* simple, multipartite, smooth, with a broad, flattened, naked base; the segments lanceolate, acuminate, arranged in a single series, connivent, equal, smooth, with a membranous border, partly stained with purple. *Receptacle* flat, slightly pitted. *Florets of the ray* from 12 to 13, disposed in a single series, fe-

male, ligulate, bluntly 5-toothed, somewhat coriaceous, and rather stiff, of a rich lilac above, whitish beneath, about half an inch long, with 5 primary nerves, and 5 distinct recurrent branches, the tube narrow, slightly compressed, smooth; those of the disk hermaphrodite, tubular, 5-toothed, teeth connivent, of a pale orange, the tube cylindrical, white, longer than the faux. *Filaments* capillary, smooth, the upper joint broad, ovate. *Anthers* united, naked at the base, and crowned by an oblong, blunt, membranous appendage. *Style* slender, filiform, smooth, hardly thickened at the base, the branches in the ray florets semi-cylindrical, blunt, recurved, glabrous; in those of the disk linear, compressed, with a truncate papillose apex. *Achenia* furrowed, those in the ray slightly compressed, glabrous; in the disk, nearly cylindrical, and thickly beset with shining papillæ. *Pappus* capillary, white, the rays disposed in a double series, rough, with minute teeth, caducous, those of the female florets much fewer in number, and falling off before the expansion of the flower.

A highly ornamental plant, native of Teneriffe, whence it was introduced, some years ago, by Mr. Webb. Our drawing was taken from a specimen which blossomed in the late Mr. Barclay's collection, at Bury Hill. It is usually regarded as an annual, but, if kept in the greenhouse during Winter, I have no doubt of its surviving for several years. It is readily increased by seeds, and appears to grow freely in almost any soil.

This, together with *Cineraria cruenta, aurita, lactea, lanata, multiflora, populifolia, and malvæfolia,* all natives of the Canary Islands, having a simple multipartite involucrum, naked at the base, analogous to that of *Othonna*, and agreeing remarkably in their habit and geographical distribution, constitute, in my opinion, as natural and well-defined a group as any in the whole family to which they belong.

The generic name is derived from περικαλλης, pretty, and alludes to the beautiful ray blossoms. *D. Don.*



ROSA indica; *var.* nivea.

White Noisette Rose.

Linnean Class and Order. ICOSANDRIA POLYGYNIA.
Natural Order. ROSACEÆ. *Juss. gen. p.* 334.
ROSA. Supra fol. 158.

R. *indica*, foliolis ellipticis acuminatis glabris crenato-serratis subtùs glaucis, ovariis 40-50. *Lindl. monogr. p.* 106.
Rosa indica. *Linn. sp. pl. p.* 705. *Lawr. ros. t.* 26. *Willd. sp. pl.* 2. *p.* 1079. *Ait. hort. kew. ed.* 2. *p.* 266. *Redout. ros.* 1. *t.* 14. *et* 2. *t.* 15. *Decand. prodr.* 2. *p.* 600.
s. nivea, foliolis glabris nitidis, floribus copiosè corymbosis plenis niveis.

Stem erect, from 2 to 3 feet high, sparingly armed with hooked prickles, dilated at the base. *Branches* round, smooth and purplish. *Leaflets* from 5 to 7, ovate, acute, equally serrated, with rather adpressed teeth, tipt with a dark-red gland, rounded, and rather oblique at the base, smooth and shining on both sides, but especially beneath, convex and bright green above; midrib and veins mostly smooth. *Footstalks* and *Rachis* narrow, semi-cylindrical, pubescent, and copiously furnished with stalked glands, and, occasionally armed with a few short hooked prickles. *Stipules* narrow, lanceolate, acuminate, bordered by stalked glands. *Flowers* copious, corymbose, snow-white, the petals very full, and rather crumpled, the outer ones and buds of a deep red colour. *Peduncles* filiform, straight, minutely pubescent, as well as the tube of the calyx, which is pear-shaped, thickly dotted, and of a glaucous hue, with ovate, acuminate segments, woolly at the edges.

For the opportunity of publishing a figure of this very handsome Rose, we are indebted to Mr. Dennis, in whose Nursery, at Chelsea, it flowered in July last. It had been imported by him from France, under the name of *Amie Vibert*, and is, doubtless, a hybrid production; most probably originated between *Rosa indica* and *moschata*. It requires a rich

loamy soil, is increased by cuttings, and requires the same treatment as the common Noisette Rose. It is an extremely free flowerer, often bearing from 40 to 50 blossoms in a cluster, and on account of most of the young shoots running to flower, cuttings are obtained with difficulty.

The generic name is already explained at fol. 158.

1
2
3
4
5

ADÉSMIA viscòsa.

Clammy Adesmia.

Linnean Class and Order. DECANDRIA MONOGYNIA.
Natural Order. LEGUMINOSÆ. *Juss. gen. p.* 345.
ADESMIA. Supra fol. 222.

A. *viscosa*, fruticosa, inermis, glanduloso-viscosa; foliolis multijugis cuneato-oblongis crenatis! calycibus acuminatis, lomentis 4-6-articulatis pubescentibus glandulosis.
Adesmia viscosa. *Gill. Mss. Hook. and Arnott in bot. misc.* 3. *p.* 192.

A slender, upright, branched, unarmed, clammy shrub, rising to the height of 2 or 3 feet, studded with numerous tubercular shining glands, with filiform twiggy branches *Leaves* copious, abruptly pinnate, on short footstalks, composed of from 9 to 14 pair of cuneately-oblong, crenate, coriaceous, nearly sessile leaflets, of a deep green colour, and void of hairs, about 2 lines long. *Stipules* lanceolate, obtuse, glandular, persistent. *Racemes* terminal, solitary, many-flowered, erect. *Pedicels* about half an inch long, filiform, straight, afterwards becoming bent, copiously glandular. *Bractes* oblong, obtuse, concave, persistent. *Calyx* campanulate, slightly pubescent, deciduous, with 5 lanceolate, pointed, nearly equal teeth. *Corolla* papilionaceous, of the colour of gamboge, larger than is ordinarily found in the genus; vexillum broad, rounded-ovate, spreading, veiny, fringed at the base; wings somewhat dolabriform, rounded at the top, semi-cordate, and naked at the base, of a rich yellow, approaching to orange; keel longer than the wings, hollow, ventricose, blunt, and notched at the apex, the suture below bursting with downy edges. *Stamens* 10, five shorter than the rest. *Filaments* free, awl-shaped, white, smooth, broader, and membranous towards the base. *Anthers* round, yellow. *Ovarium* thickly clothed with adpressed hairs. *Style* slender, compressed, the upper half attenuated and silky, quite smooth. *Stigma* compressed, nearly orbicular, pruinose. *Pod* composed of 4 or 6 semi-orbicular, compressed, one-seeded

joints, slightly pubescent, and furnished with numerous elevated dark-coloured glands.

Another interesting addition to the cultivated species of *Adesmia*, of which one has already been given in a late number. The present is, perhaps, entitled to be regarded as the most showy of the whole genus, the flowers being double the size of those of most of the other species, and of a rich gamboge yellow. It forms a small shrub, and is copiously studded with glands, which give out, especially in the dried state, an agreeable balsamic odour. The toothed leaves is a remarkable character among the *Leguminosæ*, although not confined to this species.

Chile, which is singularly rich in the species of this diversified genus, is also the native country of the one now before us, which was raised from seeds received from that country in 1832, by Messrs. Allan and Rogers, in whose Nursery, at Battersea, it flowered in August last.

The plant succeeds best in a light loamy soil, and may be increased by cuttings, or by seeds. It requires the protection of a pit, or frame, in Winter.

The generic name will be found explained at fol. 222.

D. Don.

1. Calyx and Pistil. 2. Vexillum. 3. Wing. 4. Keel. 5. Stamens.

J. Hart del.

Pub by S. Reidy Sway 169 Piccadilly Mar 1 1831

F. W. Smith sc

DIÁNTHUS Libanótis.

Lebanon Pink.

Linnean Class and Order. DECANDRIA DIGYNIA.
Natural Order. CARYOPHYLLEÆ. *Juss. gen. p.* 299.
DIANTHUS. Calyx tubulosus, 5-dentatus, basi squamis bracteolatus. *Petala* 5, unguiculata, exappendiculata. *Stamina* 10. *Styli* 2. *Capsula* teres, 1-locularis, apice dentibus 4 v. 5 dehiscens. *Semina* compressa. *Embryo* rectus, subfoliaceus.
Herbæ *v.* suffrutices (plerumque Europæ australis.) Folia *sæpiùs angusta.* Flores *terminales, aggregati, aut solitarii.* D. Don Mss.

D. *Libanotis,* bracteis indefinitis imbricatis squarrosis, dentibus calycinis subulatis, petalis multifidis barbatis: unguibus anticè carinatis.
Dianthus Libanotis. *Labill. pl. syr.* 1. *p.* 14. *t.* 5. *Decand. prodr.* 1. *p.* 365. *Lindl. in bot. reg. t.* 1548. *G. Don. gen. syst. gard. and bot.* 1. *p.* 396.

Herb glaucous. *Stem* erect, much branched, the joints thickened. *Leaves* linear, mucronate, channelled, recurved, and spreading, the margins blunt and smooth, but broadly membranous towards the base. *Calyx* tubular, striated, 2 inches long, with 5 upright, sharp-pointed, membranous teeth. *Bractes* from 4 to 7, lanceolate, mucronate, recurved, and spreading, an inch long, with broad, membranous, imbricate bases. *Petals* with long linear claws, having an elevated keel, of a greenish white, the lamina cuneate, pubescent above, divided in innumerable very narrow segments; the ground white, marked above with small irregular purple spots. *Filaments* awl-shaped, white. *Anthers* incumbent, with parallel cells. *Styles* semi-cylindrical, rather shorter than the stamens, attenuated upwards. *Stigmas* erect, twisted, bearded along the inner surface. *Ovarium* about half an inch long, pale green, with a free, central, fleshy placenta. *Ovula* arranged in 2 compact rows.

This rare and very distinct species was discovered on the lofty mountains of Lebanon, by Labillardière, who has given a very faithful representation of it in his *Icones Plantarum Syriæ Rariorum.* The number, size, and form of the bractes, essentially distinguish it from every other species.

THUS Libanotica.

Lebanon Pink.

231

HUS Libanotis.

Pink.

DIGYNIA.

p. 230.

bracteola

2. Cap

press.

SÓLLYA heterophýlla.

Various-leaved Sollya.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. PITTOSPOREÆ. *Brown gen. rem. in Flind. voy.* 2. *p.* 542. *Decand. prodr.* 1. *p.* 345.
SOLLYA. Calyx 5-phyllus. *Petala* 5, patentia. *Antheræ* apice biforaminulosæ. *Stigma* bilobum. *Pericarpium* capsulare, membranaceum, biloculare, polyspermum.
Frutices (australasici.) Flores *corymbosi, azurei.* D. Don Mss.

S. *heterophyllæ*, foliis oblongis, antheris conniventibus, ovario sericeo, caule volubili.
Sollya heterophylla. *Lindl. in bot. reg. t.* 1466.
Billardiera fusiformis. *Labill. nov. holl.* 1. *p.* 65. *t.* 90. (affirmante exemplario prototypo ab auctore misso in Herb. Lamb.) *Decand. l. c.* 1. *p.* 345.

A slender, twining, branching, evergreen shrub, rising to the height of 3 or 6 feet. *Branches* filiform, glabrous. *Leaves* copious, alternate, stalked, obliquely horizontal, elliptical-oblong, or lanceolate, acute, or abruptly mucronulate, cartilaginous and membranous, quite entire, smooth on both sides, dark green, and shining above, paler and veiny beneath, from an inch and a half to 3 inches long; those of the branches for the most part narrower, and abruptly mucronulate, sparingly hairy in the young state. *Petioles* very short, twisted, channelled above. *Corymbs* solitary, drooping, of from 3 to 9 flowers, but most frequently of 5, at first terminal, but by the prolongation of the shoots, afterwards becoming lateral. *Peduncles* filiform, half an inch long, stained with violet, rather thicker at the apex, covered sparingly with resinous dots, furnished at the base with a lanceolate, acuminate, violet-coloured, caducous bracte. *Calyx* of 5 lanceolate, acuminate, nearly equal violet-coloured leaves, imbricate in æstivation, furnished with a membranous border and 3 nerves, the centre one of which is thicker and prominent. *Petals* 5, spreading, alternating with the leaves of the calyx, obovate, with an almost obsolete point, and 3 nerves, veiny, of a brilliant azure above, paler and whiteish beneath, having a very short yellow claw. *Stamens* 5, alternating with

the petals. *Filaments* green, nearly cylindrical above, with a broad, flat, cuneiform base. *Anthers* longer than the filaments, connivent, cohering at the apex, and close pressed to the style, linear, 2-celled, inserted by their base; the cells narrow, marginal, free, diverging, and obtuse at the base, narrower and paler towards the top, opening by 2 terminal foramina, finally bursting longitudinally, with the connectivum extending beyond them into a concave truncate appendage. *Ovarium* fusiform, marked with 10 elevated lines, silky, bilocular, with 2 prominent placentæ. *Style* compressed, about half the length of the ovarium. *Stigma* composed of 2 broad, rounded, concave, minutely papillose lobes, bearing in the ripe state, a drop of a clear fluid.

This truly handsome evergreen twining shrub, is a native of Van Diemen's Land, where it was originally detected by Labillardière, who has given a figure and description of it in his work on the plants of New Holland. The figure, which is by no means a characteristic one, induced Dr. Lindley to believe it different from the subject of the present article; but the examination of specimens from the author himself, has established their identity beyond all question.

Although usually treated as a greenhouse plant, it proves to be nearly hardy; and when planted against a wall, with a favourable aspect, it will be found to thrive even more vigourously, than if kept in the conservatory. The one in Mr. Knight's Nursery, whence our drawing was taken, is placed against the west wall of one of the houses, where it has attained the height of 6 feet, and is annually adorned, during the Summer and Autumn months, with a profusion of its brilliant azure blossoms. It requires a soil composed of peat and loam, and is readily increased by cuttings.

The serrated leaves, noticed by Dr. Lindley, if not accidental, constitute a remarkable anomaly in this order, which we should scarcely have looked for from the confluent arrangement of the secondary corsæ.

The genus, which is essentially distinguished from *Billardiera*, by its spreading petals and capsular fruit, was named by Dr. Lindley, after Richard Horsman Solly, Esq., F.R.S. and L.S., &c., who has well merited the compliment, by his knowledge of vegetable physiology, and by his active promotion of science in general. *D. Don.*

1. Organs of reproduction. 2. Stamen separate. 3. Pistil.

Humble Eden del.

MANÉTTIA glàbra.

Smooth Manettia.

Linnean Class and Order. TETRANDRIA MONOGYNIA.
Natural Order. RUBIACEÆ. *Juss. gen. p.* 196.

MANETTIA. Calyx turbinatus, limbo 4-partitus, lobis minoribus sæpè interjectis. *Corolla* infundibuliformis, fauce tubove intùs barbata, limbo 4-loba, æstivatione valvatâ. *Stamina* 4, fauci inserta, subsessiles. *Capsula* compressa, bilocularis, omninò septicido-dehiscens, calycis limbo coronata. *Placentæ* 2, filiformes, erectæ, basi septo insertæ, undique liberæ. *Semina* compressa, peltata, margine membranacea. *Albumen* carnosum. *Embryo* erectus. *Cotyledones* lanceolatæ, foliaceæ.

Plantæ (Amer. Austr.) *graciles, volubiles, radice perenni.* Folia *petiolata, dilatata.* Stipulæ *breves, integræ, cum petiolo sæpiùs connatæ.* Pedunculi *axillares.*

M. *glabra*, glabra; foliis ovatis cordatisve acuminatis, pedunculis unifloris, laciniis calycinis ovato-lanceolatis acutis denticulis interjectis, corollæ tubo elongato tetragono.

M. glabra. *Cham. et Schlecht. in linnæâ*, 1829, *p.* 169. *Decand. prodr.* 4. *p.* 363.

Manettia cordifolia. *Hooker in bot. mag. t.* 3202.

Stems filiform, twining, branched, pliant, rather woody, smooth, covered with minute dots when seen under the microscope, rising to the height of a yard, or more. *Leaves* opposite, stalked, ovate, acuminate, entire, rounded at the base, smooth and shining, cartilaginous, slightly waved, of a deep green above, paler and ribbed beneath, from 2 to 3 inches long, the ribs incurved and prominent, upper ones cordate. *Footstalks* from 4 to 8 lines long, semi-cylindrical, channelled above. *Stipules* 2, small, united into a narrow ring, the apex prominent, acuminate, denticulate. *Flowers* axillary and terminal, solitary. *Peduncles* filiform, smooth, rather thickened at the apex, an inch or 2 inches long, the axillary ones are furnished with 2 bractes, and are to be regarded, in fact, as imperfectly developed branches, and the flowers, consequently, terminal. *Calyx* with a turbinate, compressed tube, longer than the limb, which is divided into 4, or rarely 5 ovate-lanceolate, acute, spreading lobes, with one or more minute teeth interposed between them. *Corolla* of a brilliant scarlet, afterwards changing to lake, funnel-shaped, 4 or rarely 5-sided, an inch and a half long, the limb of a richer colour, divided into 4, or rarely 5, ovate, acute, connivent lobes, with a valvate æstivation; tube on the inside a little above the base, which is filled with honey, furnished

with 4 or 5 lines of reversed hairs. *Stamens* inserted into the mouth of the corolla, equal in number to the lobes, and alternating with them. *Filaments* white, the points only free, cylindrical. *Anthers* oblong, incumbent, bilocular, emarginate at the base, of a dark purple; cells linear, marginal, opening lengthways, united by a broad connectivum. *Pollen* yellowish green. *Style* slender, filiform, smooth, white. *Stigma* exserted, clavate, green, 2-lobed, the lobes erect, blunt, thick, pressed together, the edges revolute, minutely papillose on their inner surface. *Ovarium* turbinate, compressed, 2-celled, with a transverse partition, crowned by a prominent, notched disk. *Placentæ* 2, filiform, erect, opposite, fixed to the partition a little above its base. *Ovula* small, flat, orbicular, with a membranous border.

This is an exceedingly elegant plant, its delicate and graceful form, and its long scarlet blossoms, contrasted with its broad deep green foliage, render it one of the most beautiful objects than can well be conceived. It is, doubtless, the M. *glabra* of Chamisso and Schlechtendahl, who enumerate, in the work above quoted, several other nearly related species, differing chiefly in the degree of pubescence, and in the proportions of the calycine segments; but whether these are really distinct species, or mere varieties of the *cordifolia* of Martius, I cannot offer a satisfactory opinion, as I do not possess sufficient materials for that purpose.

My highly-valued friend, Mr. Neill, whose choice collection at Canonmills, near Edinburgh, has long been celebrated in the annals of botany, for the number of new plants which have been raised in it, has the merit of first introducing to the British gardens the present showy species of *Manettia*, which was raised from seeds collected by Mr. Tweedie, in woods on the banks of the Rio Uruguay, in the republic of Buenos Ayres.

Our drawing was taken from a plant which blossomed in the above-mentioned collection, in September last, by Mr. Humble, a promising artist, resident at Edinburgh.

The plant appears to thrive best in a mixture of sandy peat and loam, is of easy culture, and is readily increased by cuttings, planted in sand and placed in artificial heat. Like most of the plants from the same country, it will doubtless succeed well in the open border during Summer.

The genus was named by Linnæus, at the request of his correspondent Mutis, after Xavier Manetti, Professor of Botany at Florence. *D. Don.*

1. Stamen. 2. Pistil. 3. Section of the Ovarium.

1
2
1

ARTANÈMA fimbriatum.

Fringed-flowered Artanema.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. SCROPHULARINÆ. *Brown prodr.* 1. *p.* 433.
Trib. 3. GRATIOLEÆ.

ARTANEMA. Calyx profundè 5-partitus, æstivatione quincunciali. *Corolla* tubulosa, fauce ventricosa, limbo 5-loba, bilabiata: *lobis* dentato-serratis! *Stamina* 4, didynama; 2 *inferiora* longiora. *Filamenta* corollæ tubo omninò connata, basi glanduloso-pubescentia, apice geniculata. *Antheræ* per paria cohærentes: *loculis* divaricatis, sub-oppositis, apice distinctis: *connectivo* filiformi, elongato, arcuato, apice dilatato, staminum longiorum basi appendice discoideâ aucto! *Stigma* bilamelloso-partitum. *Capsula* subrotundo-ovata, crustacea, bilocularis, apice dehiscens: *valvulis* integris: *septo* contrario. *Placentæ* 2, magnæ, spongiosæ, succulentæ. *Semina* singulo ordine creberrima, obovata, scabra, umbilico prominulo: *testâ* sub-crustaceâ: *albumen* copiosum, carnosum. *Embryo* erectus, minutus, teres, axilis: *radiculâ* centripetâ.

Herbæ (Australasicæ) *foliis oppositis dentatis, floribus terminalibus, pedunculis ebracteatis, fructiferis erectis.*

Obs. Torenia longè diversa calyce tubuloso, corollæ lobis planis integerrimis, filamentis longioribus dente laterali auctis, nec basi geniculatis, capsulâ subsiliquosâ membranaceâ, placentis angustis. *D. Don Mss.*

A. *fimbriatum*, foliis lanceolatis acutis serratis, segmentis calycinis lanceolatis mucronatis, bracteis ovatis.
Torenia? fimbriata. *Graham in edinb. phil. journ. Sept.* 1831.
T. scabra. *Ejusd. in bot. mag. t.* 3104.

The whole herb of a dark green, with a nauseous bitter taste. *Root* apparently perennial. *Stems* upright, branched, bluntly four-sided, from a span to a foot and a half high, smooth and glossy, occasionally of a purple hue, especially at the insertion of the branches; the angles often slightly concave, from the impression left by the opposite branch. *Leaves* decussately opposite, stalked, lanceolate, pointed, serrated, spreading, and recurved, attenuated and entire at both ends, from 2 to 3 inches long, even, and of an opaque green above, paler, shining, and ribbed below, rough to the touch on both sides with numerous elevated dots. *Footstalks* about half an inch long, channelled above, and connected at the base by means of a ring. *Raceme* terminal, erect, of from 4 to 16 flowers. *Peduncles* decussately opposite, rather remote, compressed, smooth, green, and slightly furrowed above, scarcely an inch long, the fruit-bearing ones more erect. *Bractes* ovate, mucronate, cucullate, adpressed, entire. *Calyx* smooth and shining, deeply parted into 5 lanceolate mucronate segments, rough at the edges, with minute teeth, the upper one larger. *Corolla* large, tubular, blue, about an inch long, clothed exteriorly with minute glandular pubes-

cence, the throat wide, ventricose, and whitish beneath, and marked with several violet-coloured bands; the limb spreading, bilabiate, with 5 broad, rounded, sharply and unequally serrated lobes, imbricate in æstivation; the upper two rather narrower, lateral pair reflexed; lower one larger, somewhat reniform, stretched out. *Stamens* 4, fertile, didynamous, or rarely 5. *Filaments* white, closely united to the tube of the corolla, bearded at the base with short glandular hairs. *Anthers* bilocular, pale blue, smooth, the cells opening lengthways, cohering with the pair of the opposite anthers, distinct at the top, attached to the edge of the broad apex of the connectivum, which is long, filiform, arched, smooth, that of the longer pair of stamens furnished at the base with a broad, disk-like, slightly reniform appendage. *Ovarium* ovate, bilocular, surrounded by a cup-shaped, entire, fleshy, yellow disk. *Style* slightly compressed, smooth. *Stigma* scarcely exserted, composed of two, flat, blunt, finally revolute lobes, minutely papillose above, the lower one larger. *Capsule* rounded-ovate, crustaceous, smooth, and shining, bilocular, with a broad, transverse, fixed partition, and having the whole cavity of the cells filled up by two large, fleshy, succulent placentæ. *Seeds* very numerous, closely arranged in a single stratum over the broad placentæ, obovate, rough, brown, with a prominent hilum.

A native of the banks of the river Brisbane, at Moreton Bay, New Holland, whence seeds were transmitted by the late Mr. Charles Fraser, to the Edinburgh Botanic Garden, where the plant blossomed in 1831. My learned and estimable friend, Dr. Graham, by whom the plant was first described, has been led to refer it to *Torenia*, regarding it at the time as identical with T. *scabra*, an opinion which he shortly afterwards abandoned. We do not find it recorded by Mr. Brown in his valuable *Prodromus Floræ Novæ Hollandiæ*, nor do we know of any genus with which it can well be associated; we have, therefore, ventured to propose it as the type of a new one, considering it essentially distinguished from *Torenia* by its deeply parted calyx, by the serrated lobes of its corolla, by the structure of its stamens, by the form and consistence of its capsule, and finally, by its large succulent placentæ—characters so obvious and important, that I could wish that many of the genera of this order were established on equally satisfactory grounds.

Although usually treated as a greenhouse plant, it will be found to succeed very well in the open border during the Summer months, producing its blossoms and ripening its seeds freely. It should be planted in a mixture of peat and loam, and is increased by seeds, or by cuttings; but the former mode is to be preferred. The plant has a good deal the aspect of *Mimulus*; its blossoms are large and showy, and we consider it an interesting addition to the gardens.

Our drawing was taken from a plant which blossomed in Mr. Neill's collection, at Canonmills, near Edinburgh, in September last.

The generic name is compounded of αραω, to append, and νημα, a filament; and is intended to designate the peculiar structure of the stamens. *D. Don.*

1. Portion of the Tube of the Corolla, showing the insertion of the Stamens. 2. Pistil. 3. Transverse Section of the Ovarium.

J. Hart del. ... by J. Ridgway 10 Piccadilly Ap 1. 1834

F. W. Smith

LINÀRIA circinàta.

Curve-leaved Toad-flax.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. SCROPHULARINÆ. *Brown prodr.* 1. *p.* 433.
Trib. 2. ANTIRRHINEÆ. *Don in Linn. trans.* 15. *p.* 351. *Chavann. monogr. p.* 73.

LINARIA. Calyx 5-partitus. *Corolla* personata, basi calcarata. *Capsula* bilocularis, valvulis 2-10 v. rarò operculis 2 dehiscens.

Plantæ (plerumque Europæ Australis) *herbaceæ v. rarò suffruticosæ.* Folia *sæpiùs sparsa.* Flores *terminales spicato-racemosi, v. axillares solitarii.*

*** *Floribus axillaribus solitariis, capsulâ operculis valvulisve 2 dehiscenti.* Elatinoides. Chavann. l. c. p. 103.

L. *circinata*, suffrutescens, glabra; foliis sagittatis circinato-recurvatis posticè acutis, segmentis calycinis lanceolatis acuminatis, calcare subulato recto corollæ longitudine, palato biprominulo densè barbato.

Plant apparently perennial, and rather woody at the base, about a span high, glabrous, but besprinkled with minute, crystalline dots. *Branches* simple, slender, procumbent, and slightly angular. *Leaves* alternate, stalked, linear-lanceolate, acute, recurved, or rather revolute, perfectly glabrous on both sides, entire at the margin, somewhat fleshy, about half an inch long, arrow-shaped at the base, with short, pointed, spreading lobes; the lower ones smaller, oblong-elliptical, slightly attenuated at the base, entire, or occasionally furnished with a single tooth. *Flowers* axillary, solitary. *Peduncles* filiform, slender, glabrous, bowed, and bent downwards, longer than the leaves, thickened, and rather club-shaped at the apex. *Calyx* 5-partite, the segments lanceolate, acuminate, glabrous, bluntly keeled, with the midrib thickened at the base; the upper one larger. *Corolla* of a sulphur colour, larger than that of L. *vulgaris*, personate, clothed with glandular pubescence, upper lip 2-lobed, lower one 3-lobed, the lobes rounded, revolute; the palate of a deeper colour, and thickly bearded, dotted with dark red, furnished with two prominences. *Spur* awl-shaped, acute, as long as the corolla, and of the same colour, dotted with red on the inside,

straight, or sometimes incurved. *Stamens* 4, didynamous. *Filaments* compressed, incurved at the apex; upper pair shortest, and quite smooth; lower ones thickly bearded with long spreading hairs. *Anthers* bilocular, cream-coloured. *Ovarium* ovate, bilocular, placed on a rather elevated fleshy disk. *Style* compressed, glabrous. *Stigma* hooked, emarginate.

This curious species of *Linaria* was raised by our worthy friend, Mr. Anderson, from seeds stated to have come from Buenos Ayres, but it seems more probable that it is a native of Northern Africa, as most of the species of the section of the genus to which it clearly belongs, are natives of that country. We do not find it recorded in the recent monograph of the group of *Antirrhineæ* by M. Chavannes, a work of rare merit, and replete with evidence of the talents and research of its author. It comes very near to *heterophylla*, but differs in its perfectly glabrous leaves, and in their remarkably curved disposition, a peculiarity not noticed in the description of that species. We regret that we had not an opportunity of seeing the ripe fruit, but we have no doubt of its belonging to the section in which we have placed it.

Our drawing was taken at the Chelsea Botanic Garden, in the latter end of June last. The plant is apparently somewhat shrubby. It requires a light loamy soil, and may readily be increased by cuttings. It will require to be protected in a pit during Winter.

The generic name is derived from *Linum*, and, as well as the English appellation, alludes to the resemblance of the leaves of many species to those of the common flax. *D. Don.*

1. Corolla partially laid open. 2. Lower lip of the same expanded. 3. Stamens. 4. Pistil.

J. Hart del. [illegible] Apl 1834 F. W. Smith.

LÁBLAVIA vulgàris.

Egyptian Haricot.

Linnean Class and Order. DIADELPHIA DECANDRIA.
Natural Order. LEGUMINOSÆ. *Juss. gen. p.* 345.

LABLAVIA. Calyx campanulato-tubulosus, 4-fidus, laciniis rectis, 3 inferioribus acutis, superiore latiore e duabus coalitis constante. *Corolla* vexillum patens basi sulcato-canaliculatum 4-callosum, callis parallelis, carina angulo recto curva. *Stamina* diadelpha, decimo intrà vexilli callos recepto. *Ovarii stipes* basi vaginulatus. *Stylus* compressus subtùs barbatus. *Stigma* terminale. *Legumen* compresso-planum acinaciforme ad suturas tuberculoso-muricatum, intùs isthmis cellulosis tranversis inter semina instructum. *Semina* 4, aut abortu pauciora ovata sub-compressa, callo fungoso lineari ex umbilico orto, in alterâ extremitate marginata.

Herbæ *volubiles.* Stipulæ *patentes.* Folia *pinnato-3-foliolata, foliolis stipellatis integris.* Racemi *pedunculati basi folium unicum gerentes, seu si mavis folio oppositi ramulo intermedio abortivo.* Pedicelli *semiverticillati.* Semina *nigra aut fusca, hilo et callo albo.* Decand. prodr. 2. p. 401.

L. *vulgaris*, leguminibus acinaciformibus oligospermis, seminis carunculâ hemisphæricâ.
Lablab vulgaris. *Savi diss. p.* 19. *f.* 8. *a. b. c. Decand. l. c.* 2. *p.* 401. *G. Don gen. syst. gard and bot.* 2. *p.* 361.
L. niger. *Mœnch meth. p.* 153.
Dolichos Lablab. *Linn. sp. pl. p.* 1019. *Roy. ludgb. p.* 368. *Hort. ups. p.* 214. *Mill. dict. n.* 1. *Schk. handb. t.* 199. *Bot. mag. t.* 896. *Willd. sp. pl.* 3. *p.* 1038. *Lam. dict.* 2. *p.* 293.
Phaseolus niger Lablab vocatus. *Prosp. Alpin. pl. ægypt. p.* 74. *t.* 75.
P. Ægyptius, nigro semine. *Bauh. pin. p.* 341.
β. *purpureus*, floribus purpureis, semine nigro-purpureo.
Dolichos purpureus. *Linn. sp. pl. p.* 1021. *Smith exot. bot. t.* 74. *Jacq. fragm. p.* 45. *t.* 55. *Lour. fl. cochin. p.* 438. *Lindl. in bot. reg. t.* 830.
γ. *albiflorus*, floribus albis, seminibus atrorubentibus pallidè ferrugineis albisve.
Dolichos Bengalensis. *Jacq. hort. vind.* 2. *t.* 124. *Willd. sp. pl.* 3. *p.* 1038.
D. albus. *Lour. l. c. p.* 439.
D. Lablab. *Gærtn. t.* 150.
Lablab nankinicus. *Savi l. c. p.* 22. *f.* 8. *d—g.*
L. leucocarpus. *Savi l. c. p.* 22. *f.* 9. *a—d.*

Root fibrous, annual. *Stems*, if supported, extending to the height of 6 feet, or more, angular, slightly hairy. *Leaflets* broad-ovate, pointed, smooth, or pubescent, with 3 nerves, and numerous branching reticulated veins. *Stipules* lanceolate, acute. *Flowers* in long interrupted clusters, of a pale purple, varying often to dark purple, or white. *Bractes* lanceolate, pointed, coloured, pubescent, caducous; the par-

tial ones in pairs, elliptical, obtuse, concave, seated at the base of the calyx, which is campanulate, downy, purplish, the lower lip of 3 lanceolate acute teeth, the upper one shorter and notched. *Pods* short, broad, scymeter-shaped, pubescent, tuberculate, about 2 inches long, attenuated at the base, pointed with the persistent style. *Seeds* compressed, black.

This is cultivated in India, China, Egypt, and many other countries of the East, and also in the West India Islands, on account of its pods, which are prepared and eaten in the same manner as kidney-beans; and, although a variety of it has been long cultivated in the gardens as an ornamental plant, we do not know that the present one has been used until lately for that purpose. It is an extremely showy plant, and is admirably suited for being trained to trellis-work, or over a verandah. Mr. Little (at whose Nursery, King's-road, Chelsea, our drawing was taken, in September last,) has cultivated it for some years as an ornamental plant, and he finds it to be quite as hardy, and to require the same treatment as the kidney-bean.

Although cultivated in Egypt, and Arabia, from time immemorial, it does not appear to be indigenous to either of those countries, but was, most probably, originally introduced from India. Like many other plants, which have been for a long series of years in cultivation, this, as might be expected, has produced several remarkable varieties; but none of them, in my opinion, are entitled to be ranked as species, as many botanists appear disposed to think. The plant is increased by seeds, which ripen in the open air.

The name Lablab, means simply, in Arabic, a twining plant, and is applied indiscriminately to the *Convolvulus*, and many others of similar habit. Besides giving it a Latin termination, which, I think, should always be done in the case of barbarous words adopted as generic names, into botanical nomenclature, I have, also, changed the *b* into *v*, a liberty which the genius of the Arabic allows. *D. Don.*

1. Calyx, with its bractes. 2. Keel. 3. Portion of the Corolla, showing the situation of the Calli. 4. Callus separate. 5. The 9 united Stamens. 6. Tenth Stamen separate. 7. Pistil. 8. Pod.

Correction in the preceding Number.

Fol. 232, line 7 from the bottom, for "corsæ," read "costæ.

3
1
2

NIEREMBÉRGIA intermèdia.

Narrow-leaved Purple Nierembergia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. SOLANEÆ. *Brown prodr.* 1. *p.* 443.
NIEREMBERGIA. Suprà fol. 172.
Sect. 2. *Corollæ fauce dilatatâ sæpiùs ventricosâ, staminibus inæqualibus tubo medio insertis subinclusis, stigmate subcapitato.* Petunia.

N. *intermedia,* foliis linearibus obtusis densè pubescentibus, corollæ tubo vix calyce longiore: laciniis emarginatis, stylo clavato, capsulâ 5-costatâ.
Nierembergia intermedia. *Graham in edinb. phil. journ.* 1833.
Salpiglossis linearis. *Hooker in bot. mag. t.* 3256.

Plant somewhat shrubby, thickly clothed with very short, glandular, clammy, and hoary pubescence. *Stems* erect, much branched, round, and leafy, from a span to a foot high. *Leaves* alternate, or often fasciculate from the undeveloped branches, sessile, linear-spathulate, or oblong, blunt, entire, recurved and spreading, about half an inch long, concave above, convex but scarcely carinate beneath. *Flowers* copious, situated opposite the leaves. *Peduncles* an inch long, filiform, afterwards becoming bent down. *Calyx* campanulate, 5-sided, with 5 blunt, strap-shaped, spreading, unequal segments. *Corolla* funnel-shaped, scarcely an inch long, copiously clothed with glandular pubescence; tube yellow, striated, hardly longer than the calyx; throat ventricose, yellow within; limb plaited, 5-lobed, of a rich purple, paler and veiny towards the border, the centre of a deeper colour, with a slight shade of brown; the lobes are very short, rounded and emarginate. *Stamens* 5, all fertile, inclosed, declinate, unequal, the fifth very short, straight, erect, placed between the longer pair. *Filaments* awl-shaped, mostly bent, glabrous, or slightly glandular, pale green, attenuated towards the top, thickened and connivent at the base, where they are attached to the tube. *Anthers* yellow, reniform, bilocular, cells connate at the middle, free at both ends, and

opening lengthways. *Ovarium* ovate, angular, bilocular, surrounded at the base by a slightly lobed, fleshy ring. *Style* clavate, slightly compressed, glabrous, attenuated at the base. *Stigma* compressed, blunt, slightly 2-lobed, viscid, the lobes connate, revolute at the margin. *Capsule* rounded, ovate, bilocular, with five prominent ribs. *Placentæ* 2, fungous, pitted, attached to the partition. *Seeds* when mature, few in each cell, round, rough, with elevated dots. *Testa* brown, crustaceous. *Albumen* copious, fleshy, white. *Embryo* small, slightly curved.

A native of sandy plains near the banks of the Parana, where it was discovered by Mr. Tweedie, and from seeds transmitted by that enterprising collector, in 1832, to our highly valued friend, Mr. Neill, a single individual, was raised in the collection at Canonmills, where our drawing was taken in September last. As the plant is found to produce seeds much more freely than the other species, and to be readily increased by cuttings, we hope soon to see it a common ornament of the flower border, to which its graceful habit, and successive profusion of blossoms of the deepest purple, shaded partly with brown, and of a rich velvetty hue, cannot fail to render it a most welcome addition. It appears to be quite as hardy as the *phœnicia*, given in the preceding volume, and is found to thrive best in a mixture of peat and river sand.

For the explanation of the generic name, see folio 172. *D. Don.*

1. A Flower with the Corolla removed. 2. Pistil. 3. Transverse Section of the Ovarium.

PÆÒNIA Moútan; *var.* variegáta.

Party-coloured Tree Pæony.

Linnean Class and Order. POLYANDRIA DIGYNIA.
Natural Order. RANUNCULACEÆ. *Juss. gen. p.* 231.
PÆONIA. Calyx 5-sepalus foliaceus inæqualis. *Petala* 5-10 suborbiculata. *Stamina* indefinita. *Discus* carnosus ovaria cingens. *Carpella* 2-5 grossa stigmatibus bilamellatis crassis instructa, in folliculos capsulares conversa. *Semina* subglobosa, nitida.
Radices *fasciculatæ.* Folia *caulina biternatim secta.* Flores *ampli albi aut purpurascentes.* Decand. prodr. 1. p. 65.

P. *Moutan*, caule fruticoso, foliolis summo apice trifidis, germinibus tomentosis urceolo-membranaceo inclusis. *Anderson in linn. trans.* 12. *p.* 252.
Pæonia Moutan. *Hort. kew. ed. II. v.* 3. *p.* 315. *Sims in bot. mag. t.* 1154. *Smith in Rees' cyclop. in loco. Bonpl. nav. p.* 1. *t.* 1. *Decand. syst.* 1. *p.* 387. *prodr.* 1. *p.* 65.
P. officinalis. *Thunb. fl. jap. p.* 230. (ex parte).
β. *variegata*, floribus 10-petalis patulis, petalis albo-roseis basi intensè lilacinis, caule vix sesquipedali.

This is a low growing bushy plant, branching from the ground, and scarcely woody. The stems, although they rarely exceed a foot or 18 inches in height, bear commonly not less than five flowers. *Leaves* triternately parted, with ovate-oblong acuminate segments, of a greener hue than is met with in the other varieties of this species; the terminal ones mostly 3-lobed. *Flowers* large and showy, of seldom more than 10 petals, and when fully expanded about 6 inches across. *Petals* broadly wedge-shaped, veiny and lobed at the upper edge, the ground white, stained of a deep rose colour in various parts, the base marked with numerous radiating streaks of violet and purple. *Stamens* numerous, apparently fertile. *Filaments* purple. *Anthers* yellow. *Pistils* dark red.

The Earl of Mountnorris, whose successful culture of the tree Pæony, has been rewarded by the production of several splendid varieties far excelling any of those imported from China, was so fortunate also as to raise the present fine variety,

which is remarkable for its dwarf and almost herbaceous habit. It was raised from seeds of the *papaveracea*, which his Lordship supposes had been accidentally fertilized by some of the herbaceous species. All the varieties raised at Arley, were from *papaveracea*, and not from *Banksii*, as the gardener had inadvertently stated. The *papaveracea* appears to be really the normal form of the species, as the late Mr. George Anderson suggested. The tree Pæonies are propagated by layers, which should be twisted a little, and the soil best adapted for them is a mixture of vegetable earth and fresh meadow loam.

For an account of the other varieties of the tree Pæony, we refer our readers to Mr. Sabine's elaborate paper in the sixth volume of the Transactions of the Horticultural Society.

The generic name is derived, according to some, from *Pæon*, a noted physician of antiquity; and by others, which is much the most probable, from *Pæonia*, a mountainous country of Macedonia, where some of the species grow wild. *D. Don.*

2

NYCTÈRINIA Lychnídea.

White-flowered Nycterinia.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. SCROPHULARINÆ. *Brown prodr.* 1. *p.* 433.
Trib. IV. BUCHNEREÆ. *Nobis.*

NYCTERINIA. Calyx tubulosus, 5-dentatus, sub-bilabiatus, sinubus membranaceus. *Corolla* hypocrateriformis: *tubo* longissimo, filiformi; *fauce* coarctatâ, glanduloso-pilosâ: *limbo* 5-partito, patulo. *Stamina* 4, didynama, fauci corollæ inserta: *filamenta* compressa, glabra, brevissima: *antheræ* lineares, unilobæ, bivalves, longitudinaliter dehiscentes, connectivo insigni carinato viridi insertæ; 2 *superiores* minores. *Ovarium* oblongum, teres, biloculare, basi glandulâ elevatâ auctum. *Stylus* filiformis, glaber. *Stigma* loriforme, revolutum, minutè papillosum. *Capsula* bilocularis. *Semina* minuta, creberrima.

Plantæ (capenses) *suffruticosæ, viscosæ.* Folia *opposita, indivisa.* Flores *terminales, corymboso-spicati, bracteati.*

Obs. Genus omninò diversum est Erinus (E. alpinus) calyce 5-partito æquali, staminibus tubo corollæ infra medium insertis inclusis, antheris bilobis reniformibus loculis apice confluentibus, stylo brevissimo, stigmate capitato viscoso biglanduloso. Buchnera staminibus infra medium tubi insertis, antheris bilobis mucronatis, stigmate clavato emarginato, calyce æqualiter 5-dentato facilè distinguitur. *D. Don Mss.*

N. *Lychnidea*, foliis lineari-oblongis dentatis, limbi laciniis semibifidis.
Erinus Lychnidea. *Linn. suppl. p.* 287. (excluso synonymo). *Thunb. prodr. p.* 102. *Willd. sp. pl.* 3. *p.* 333. *Persoon syn.* 2. *p.* 147. (excl. syn. *Burm.*) *Lindl. in bot. reg. t.* 748.

The whole plant of a dark green, clothed with recumbent bristly hairs, and yielding a glutinous substance resembling, in appearance and odour, gum ladanum. *Stem* suffruticose, erect, cylindrical, branched, rigid, from 3 to 6 inches high. *Leaves* opposite, sessile, linear, obtuse, about an inch long, revolute at the edge, furnished with several blunt teeth, rather hoary beneath. *Flowers* terminal, spiked, expanding only in the evening, or in cloudy weather, and then very fragrant. *Bractes* leafy, oblong, blunt, even, fringed, entire or toothed. *Calyx* tubular, membranous, very pale green, almost white, hairy, cloven lengthways, and somewhat bilabiate, with 5 short, blunt, erect, fringed teeth. *Corolla*, the tube filiform, an inch or an inch and a half long, of a livid purple; faux contracted, hairy and glandular; limb deeply parted into 5 wedge-shaped, cloven segments, with divaricate, blunt, spathulate lobes, imbricate

in æstivation, above of a milk white, underneath of a livid purple. *Stamens* 4, didynamous, inserted in the mouth of the corolla. *Filaments* very short, compressed, glabrous. *Anthers* exserted, linear, 1-lobed, yellow, bursting lengthways, attached to a thick, carinate, green connectivum, the upper pair smaller. *Ovarium* oblong, cylindrical, bilocular, with numerous minute ovula closely packed on two placentæ. *Style* filiform, white, smooth. *Stigma* simple, long, linear, blunt, flat, loriform, revolute, copiously papillose, especially at the edges.

This forms a very pretty border flower during the Summer months, thriving in a mixture of sandy peat and loam, and is readily increased both by seeds and cuttings. A supply of the latter should be put in, in the Autumn, and kept in the greenhouse, or in the propagating pit, until the middle of May, when they are to be planted out in the open border. Its blossoms are very elegant, expanding only in the evening, or in cloudy weather, and they are then highly fragrant.

The genus is a very natural one, and is essentially distinguished from *Erinus* and *Buchnera* by the structure of the anthers and stigma, and by the insertion of the filaments. It will contain, besides the species now under consideration, *Erinus fragrans*, *tristis*, and *africanus*, of Linnæus, all natives of the Cape, and agreeing remarkably both in habit and structure.

Our drawing was taken in September last from a plant in the open border, in Mr. Neill's collection, at Canonmills, near Edinburgh.

The flowers of all the species expanding at night, the genus has very appropriately been named *Nycterinia*, from νυκτερινος, nocturnal. *D. Don.*

1. Stamens. 2. Pistil.

ALONSÒA linearis.

Linear-leaved Alonsoa.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. SCROPHULARINÆ. *Brown prodr.* 1. *p.* 433.

ALONSOA. Calyx 5-partitus, æqualis, æstivatione valvatâ. *Corolla* subrotata, 5-fida, irregularis, resupinata, æstivatione imbricatâ; *lacinia supremâ* majore. *Stamina* 4, didynama, declinata: *filamenta* teretia, glabra: *antheræ* approximatæ, cordatæ, biloculares: *loculis* apice confluentibus, suturâ continuâ dehiscentibus. *Stylus* filiformis, declinatus. *Stigma* capitatum. *Capsula* membranacea, bilocularis, apice dehiscens, polysperma: *valvulis* apice bifidis. *Dissepimentum* e capsulæ valvularum marginibus introflexis constitutum, contrarium. *Placentæ* 2, oblongæ, fungosæ, processibus elevatis undique ornatæ. *Semina* angulata, scabra.

Plantæ (peruvianæ) *humiles, caule nunc suffruticoso.* Folia *opposita.* Flores *solitarii, pedunculati, in ramulorum apice racemosi, unibracteati.* Corolla *coccinea.*

A. *linearis*, foliis linearibus integerrimis dentatisve.
Alonsoa linearis. *Ruiz et Pavon syst.* 1. *p.* 154. *fl. peruv. et chil. v.* 5. *ined. t.* 503. *f. b. Brown in hort. kew.* 4. *p.* 27.
Celsia linearis. *Jacq. coll.* 2. *p.* 270. *ic.* 3. *t.* 497. *Curt. bot. mag. t.* 210.
Hemimeris coccinea. *Willd. sp. pl.* 3. *p.* 283. *Persoon syn.* 2. *p.* 162.

A dwarf, bushy, suffruticose plant, of a span or a foot high. *Branches* square, purple, perfectly glabrous, stiff and fragile. *Leaves* opposite, or in threes, mostly fasciculate, from the non-evolution of the axillary shoots, narrow, linear, pointed, or subulate, channelled above, of a dull green, an inch, or an inch and a half long, the points purple; lower ones longer and broader, and occasionally furnished with minute distant teeth; upper ones and those of the branchlets subulate, and quite entire. *Racemes* terminal, erect, few-flowered. *Bractes* subulate, entire. *Peduncles* longer than the bractes, quadrangular, half an inch long, copiously clothed with glandular pubescence. *Calyx* glandular, deeply parted into 5 lanceolate, acute segments, valvate in æstivation, the two upper ones rather broader. *Corolla* obliquely rotate, irregular, 5-lobed, lobes rounded, reniform, entire, the lower ones very small, sparingly glandular outside, scarlet, dark-red at the base. *Stamens* 4, inserted at the base of the tube, slightly declinate. *Filaments* stout, rounded, glabrous, pale yellow. *Anthers* cordate-oblong, obtuse, of a rich yellow, longer than the filaments, the cells confluent at the top, opening by a continous fissure. *Ovarium* ovate-oblong, bilocular. *Style* declinate, filiform, glabrous, double

the length of the stamens. *Stigma* small, capitate, minutely papillose. *Capsulæ* ovate-oblong, pointed, rather compressed, bilocular, opening at the top by two cloven valves. *Partition* transverse, formed by the inflected edges of the valves. *Placentæ* 2, oblong, fungous, furnished with elevated processes. *Seeds* numerous, small, angular, scabrous.

Found by Ruiz and Pavon, growing in waste grounds, and by way sides, about Pillao, Panao, Chaclla, and other towns and villages of the provinces of Tarma, and Huassahuassi, in Peru, where it is known by the names of Ricaco and Ricarco, meaning mask-flower, and blossoming from May to September. One species of the genus is famed in Peru for its anodyne and stomachic properties.

The *Alonsoæ* are plants of very easy culture, and add much to the ornament of the flower borders during the Summer and Autumn months. They prefer a light loamy soil, and are easily increased by seeds or cuttings. A supply of young plants destined for the borders should be raised in the preceding Autumn, and planted out early in May.

The species here figured, which is certainly that of Ruiz and Pavon, although formerly a denizen of the gardens, having been first introduced in 1790, has now become rare, the A. *acutifolia* having usurped its place and name in most collections.

Our drawing was taken in August last, at the Botanic Garden, Chelsea, where the plant had been raised from seeds communicated by Mr. Hugh Cuming.

The genus is essentially distinguished from *Celsia* and *Hemimeris*, with both of which it has been confounded by several eminent Botanists, and we are inclined to think more nearly related to *Angelonia* and *Calceolaria* than to either of them. The corolla is that of *Calceolaria* in an expanded form, and its resupinate character appears to arise from the twisting of the peduncle in an early stage.

The genus was named by Ruiz and Pavon, after Don Zeno Alonso, Secretary to one of the Spanish Viceroys of New Granada, and a zealous promoter of the publication of the *Flora Peruviana*. D. Don.

Correction in the Number for March.

Adesmia viscosa, *fol.* 230. This fine species was raised by Mr. Knight, from seeds collected in Chile, by Mr. Cuming. The drawing, which was taken at Mr. Knight's, during our absence from London, was inadvertently stated to have been from the Nursery of Messrs. Allen and Rogers.

H. Smith del. et sculp.

RHODODÉNDRON campanulàtum.

Bell-flowered Rose Bay.

Linnean Class and Order. DECANDRIA MONOGYNIA.
Natural Order. ERICACEÆ. Trib. 2. RHODOREÆ.
RHODODENDRON. Suprà fol. 10.

R. *campanulatum*, decandrum; foliis perennantibus elliptico-oblongis mucronatis subtùs ferrugineis basi subcordatis, corollâ campanulatâ: lobis planis emarginatis, ovariis 6-locularibus glabris.
Rhododendron campanulatum. *D. Don in mem. wern. soc.* 3. *p.* 410. *prodr. fl. nepal. p.* 153. *Lodd. bot. cab. t.* 1944. *Wall. catal. n.* 756.

A small evergreen tree, of from 3 to 5 feet high, with spreading branches. *Stem* about an inch in diameter, clothed with a deciduous brown bark. *Branches* round, stiff, the younger ones of a dull red, and glabrous. *Leaves* stalked, oblong, elliptical, coriaceous, cartilaginous and recurved at the edges, rounded at both ends, the base slightly cordate, from the edges being folded back, terminated by a callous, obtuse gland, dark green, smooth and reticulated above, the underside copiously clothed with very short, scaly pubescence, at first of a purplish hue, afterwards changing to nearly white, and finally to a deep ferruginous brown, from 2 to 4 inches long, an inch to 2 inches broad; midrib pale-green. *Footstalks* about an inch long, rather thicker than a crow-quill, round, glabrous, of a dull red, and much wrinkled, marked above with a narrow furrow. *Flowers* copious, from 10 to 14 in a corymbose cluster. *Peduncles* straight, glabrous, nearly cylindrical, of a pale green, stained with purple, slightly angular, and 5-lobed at the top, an inch or more in length. *Bractes* oblong, acuminate, concave, copiously fringed, caducous, pale green. *Corolla* large, bell-shaped, pale-pink, changing to white, 2 inches across, with 5 broad, rounded, notched, even lobes, with the edges rather incurved; the upper one marked on the inside with irregular purple spots. *Stamens*

10, inclosed, unequal, declinate. *Filaments* awl-shaped, white, copiously bearded at the base. *Anthers* brown, of 2 parallel connate cells, opening by 2 terminal, round foramina. *Ovarium* oblong, conical, 6-sided, 6-celled, glabrous, seated on a flattish angular disk, of a glaucous green, dotted with white. *Style* declinate, filiform, pale-green, projecting beyond the corolla, club-shaped at the top. *Stigma* annulate, with an elevated, 6-lobed, papillose disk.

This splendid species of *Rhododendron* is a native of Gosaingsthan, a high mountain, to the north of the valley of Nepal, and was introduced to the gardens about ten years ago, from seeds communicated by Dr. Wallich. The flowers are of a milk white, shaded with lilac, and surpass in size all others of the genus, with the exception of one discovered in Java, by Dr. Horsfield, the dimensions of whose corolla are still greater. It was originally taken up by me from specimens sent by Dr. Wallich, and preserved in the Lambertian Herbarium. It is truly arborescent, although of much smaller dimensions than *arboreum*, and being found at a higher elevation, it is to be presumed that it will prove hardier than that species. It will be found to succeed well in a soil composed of two parts of sandy peat, and one of meadow loam, and it may be increased by layers, or by seeds.

Our drawing was taken from a fine healthy plant, which blossomed in Mr. Knight's choice collection, in April last.

It is remarkable, that India should possess the maximum of the typical species of this genus, while in China and Japan, is found a group connecting these with the pentandrous species of North America.

The generic name will be found explained at fol. 10. *D. Don.*

1. Stamen. 2. Pistil.

LOBÈLIA polyphýlla.

Leafy Lobelia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. CAMPANULACEÆ. *Brown prodr.* 1. *p.* 559.
Trib. 2. LOBELIEÆ.
LOBELIA. Suprà fol. 86.

L. *polyphylla*, foliis ovato-lanceolatis mucronatis argutè serratis glaberrimis, recemo terminali folioso, corollæ tubo calyce vix longiore.
Lobelia polyphylla. *Hook. and Arnott in Beechey's voy. append. p.* 33.

Root perennial. *Stems* erect, round, simple, solid, leafy, glabrous, rather woody at the base, rising to the height of 4 or 5 feet, and abounding in a nauseous, highly acrid juice. *Leaves* ovate-lanceolate, pointed, finely and unequally serrated, glabrous and shining on both sides, paler and veiny beneath, varying from 2 to 4 inches long; the lower ones more coarsely serrated, stalked and attenuated at the base; upper ones broader and sessile. *Racemes* terminal, leafy, from a span to a foot long. *Flowers* solitary, about as long as the bractes, on short filiform peduncles. *Bractes* large, leafy, ovate-lanceolate, pointed, finely serrated. *Calyx* hemispherical, slightly pubescent, with 5 erect, lanceolate, acuminate teeth. *Corolla* scarcely an inch long, of a dark purple, finely pubescent, cleft along the back; the limb bilabiate, with ovate-lanceolate, acute, recurved segments; the tube ventricose at the base, a little longer than the calyx. *Stamens* cohering, purple. *Anthers*, lower pair bearded at the apex, the rest naked. *Ovarium* inferior, of two cells, with a membranous partition. *Ovula* crowded, attached to two thick, adnate placentæ. *Stigma* cloven, with two broad, revolute, greenish lobes.

This, together with *mucronata* and *Tupa*, from the same country, are very nearly allied, being found to differ chiefly in the proportionate length of the tube of the corolla, the

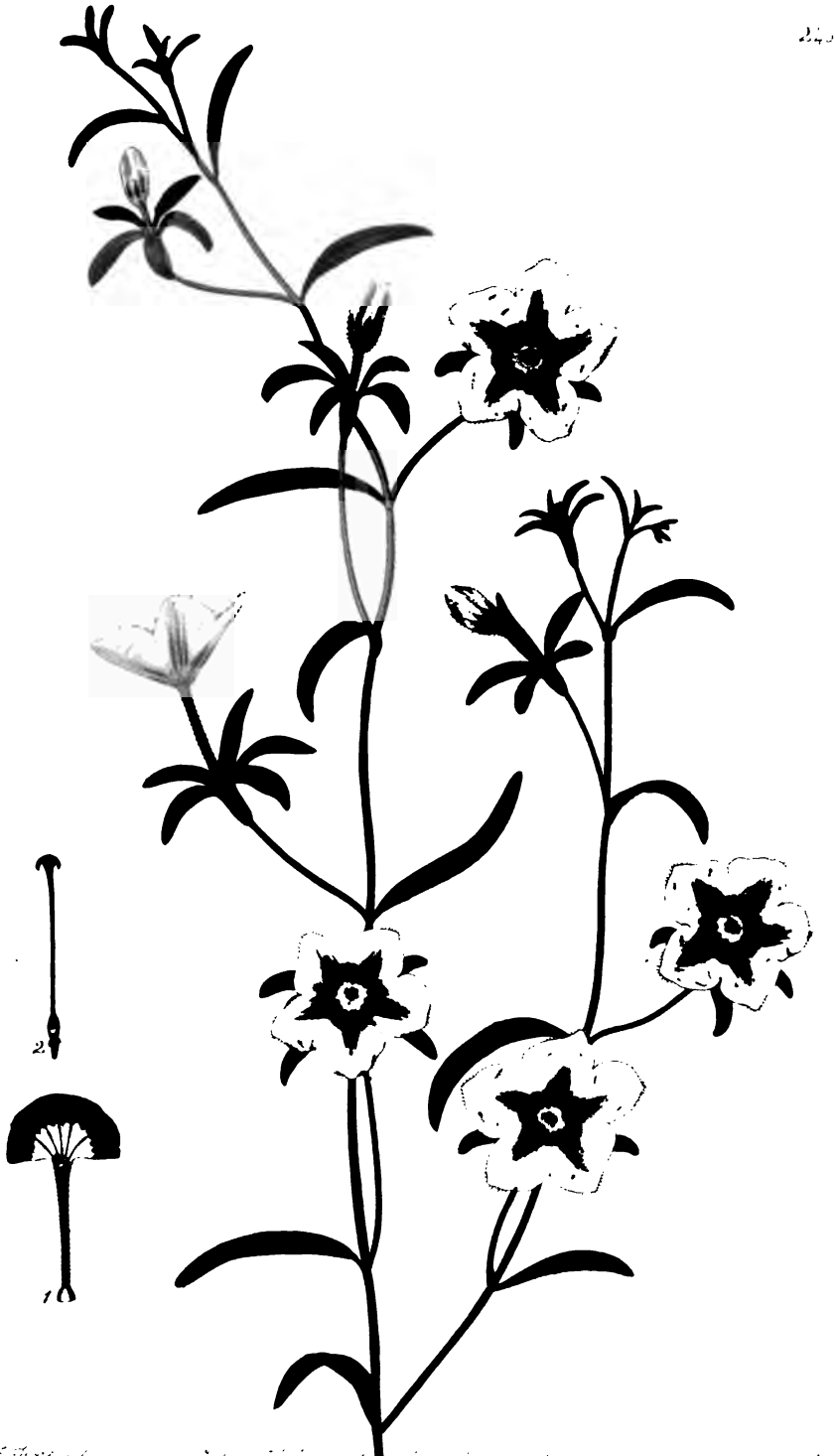
degree of development of the bractes, and in the presence or absence of downiness on the stem and leaves. The one now under consideration has the largest bractes, the shortest tube to the corolla, and is almost wholly glabrous.

It is frequent on the hills about Valparaiso, in Chile, whence we have seen specimens from Messrs. Bridges, Collie, and Cuming; and it appears to have been first collected by Mr. Collie, during the stay of H. M. Ship Blossom at that port.

Introduced about four years ago, from seeds communicated by Mr. Bridges, and more recently by Mr. Cuming. We regret that our drawing, which was taken at the Nursery of Messrs. Allen and Rogers, in September last, conveys but an inadequate idea of the plant, which, when grown in perfection, is highly ornamental. A plant which flowered at Boyton, in the open border, in 1832, had several stems nearly six feet high, with the racemes more than a foot long.

It thrives best in a light rich soil, and is increased by division, or by seeds.

The explanation of the generic name is already given at fol. 86. *D. Don.*


2
1

NIEREMBÉRGIA filicaúlis.

Twiggy Nierembergia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. SOLANEÆ. *Brown prodr.* 1. *p.* 443.
NIEREMBERGIA. Suprà fol. 172.
* *Corollæ tubo filiformi, fauce coarctatâ, staminibus erectis subæqualibus summo tubo insertis, stigmate complanato.* Nierembergiæ propriæ.

N. *filicaulis*, glabriuscula; foliis lineari-lanceolatis acutis, calyce acuminato corollæ tubi longitudine.
Nierembergia filicaulis. *Lindl. in bot. reg. t.* 1649.

Stems filiform, erect, about a foot high, with numerous spreading branches, and like the rest of the plant nearly glabrous. *Leaves* linear-lanceolate, or linear, pointed, recurved and spreading, about an inch or two in length; the lower ones broader, somewhat spathulate, and occasionally verticillate. *Peduncles* filiform, slender, glabrous, an inch or more in length. *Calyx* turbinately tubular, glabrous, furnished with ten ribs; the segments linear-lanceolate, acuminate, recurved and spreading, rather rigid, longer than the tube. *Corolla* nearly double the size of N. *gracilis*, pale purple, with the border and tube nearly white; the tube is copiously glandular, varying in length, but generally about as long as the calyx and limb, which last is concave, plaited with 5 shallow, rounded, somewhat reniform, entire lobes; faux yellow. *Stamens* 5, approximate, and inserted into the mouth of the tube. *Filaments* awl-shaped, compressed, white, minutely glandular. *Anthers* yellow, of 2 unequal parallel cells, having an oblique insertion. *Ovarium* ovate, bilocular, surrounded at the base by an elevated, cupular, white, minutely crenulate disk. *Style* capillary, glabrous, dilated at the top. *Stigma* lunate, viscid, with arched connate lobes, keeled below.

Taller and more glabrous than *gracilis*, given at Tab. 172, of the present series, with the limb of the corolla about

double the size of that species, and the tube rarely exceeding the calyx in length. The filaments in both are glandular, and, in other respects, the plants are pretty nearly similar.

A native of Entre Rios, a province of the Republic of Buenos Ayres, and was raised in 1832, from seeds sent by Mr. Tweedie, to our friend Mr. Neill, in whose collection at Canonmills, near Edinburgh, we saw it in great perfection in the open border, in the early part of last Autumn. The plant requires a soil composed of peat and loam, in nearly equal proportions, and is increased with facility by cuttings.

Our drawing was taken at the Botanic Garden, Chelsea, in August last.

The generic name is explained at fol. 172. *D. Don.*

1. Corolla laid open to show the insertion of the Stamens. 2. Pistil.

CALCEOLÀRIA purpùrea; *var.* picta.

Painted Slipperwort.

Linnean Class and Order. DIANDRIA MONOGYNIA.
Natural Order. SCROPHULARINÆ. *Brown prodr.* 1. *p.* 433.
Trib. 5. CALCEOLARIEÆ.
CALCEOLARIA. Suprà fol. 220.

C. *purpurea*, herbacea; foliis radicalibus cuneato-oblongis dentato-serratis rugosis scabris; caulinis superioribus cordatis integerrimis, paniculâ corymbosâ diffusâ, corollæ labio inferiore orbiculato repando. *Nobis suprà fol.* 199.
Calceolaria purpurea. *Graham in bot. mag. t.* 2775. *Lindl. in bot. reg. t.* 1621.
γ. *picta*, floribus niveis purpureo-fasciatis.

Plant herbaceous, perennial. *Stems* rather slender, upright, branched, cylindrical, copiously clothed with glandular pubescence, viscid, green, from a span to a foot high. *Leaves*, the radical ones cuneate-oblong, or lanceolate, acute, coarsely and unequally serrated, of a brighter green than in var. *a*, pubescent on both sides, wrinkled and rough above with coarser hairs, varicose beneath, narrowed and entire from the middle downwards; those of the stem ovate, acuminate, spreading, toothed at the apex, attenuated at the base, but scarcely stalked; the upper ones and bractes embracing the stem, cordate, acuminate, entire, frequently reflexed. *Panicle* corymbose, ample, spreading. *Peduncles* divaricately spreading, variously forked. *Pedicels* slender, capillary, pubescent, glandular, varnished, about half an inch long. *Calyx* 4-partite, copiously clothed with glandular pubescence; the segments ovate, rather obtuse. *Corolla* white, with a very short tube; upper lip prominent, somewhat globular, helmet-shaped; the lower one 3 or 4 times larger, orbicular, compressed, marked above with several depressed lines, and a broad purple band, the edge

repandly crenate. *Filaments* very short, compressed, thickened at the base. *Anthers* pale yellow, the cells distinct, ventricose, opening lengthways. *Ovarium* ovate, bilocular, minutely glandular. *Style* cylindrical. *Stigma* an obtuse gland.

An accidental variety of C. *purpurea*, first raised, as we have been informed, by Mr. Wheeler, Nurseryman at Gloucester. It differs from *purpurea* in nothing but colour, and the greener hue of the whole herbage. Its copious delicate white blossoms, marked with a broad purple band, render it an agreeable addition to the already numerous cultivated varieties of this genus.

The plant requires a light rich soil, and can only be increased by division.

The specimen, whence our drawing was derived, was communicated by Mr. Gillen, Gardener to Mr. M'Intosh, at the East India Docks, in the beginning of last Summer.

S. Humble del. Pub. by S. Lodge 102 Blandilly Sept. 1. 1834

CHYMOCÁRPUS pentaphýllus

Five-leaved Chymocarpus.

Linnean Class and Order. OCTANDRIA MONOGYNIA.
Natural Order. TROPÆOLEÆ. *Juss. in ann. mus.* 3. *p.* 447.
CHYMOCARPUS. Calyx persistens, æstivatione valvatâ. *Petala* 2. *Pericarpium* baccatum!
Herba (bonariensis) *scandens, radice tuberosâ, perenni.* Folia *petiolata, quinato-partita.* Flores *axillares, solitarii, longè pedunculati.* Calyx: tubo *erubescenti:* limbo *viridi.* Petala *punicea.* Bacca *pulposa, atro-violacea.*

Chymocarpus pentaphyllus. *D. Don. in linn. trans.* 17. *p.* 14. *et* 145.
Tropæolum pentaphyllum. *Lam. dict.* 1. *p.* 612. *ill. t.* 177. *Willd. sp. pl.* 2. *p.* 299. *Persoon syn.* 1. *p.* 405. *Smith in Rees Cyclop. in loco. Decand. prodr.* 1. *p.* 684. *St. Hil. pl. usuel. bras. t.* 41. *Grah. in bot. mag. t.* 3190. *Lindl. in bot. reg. t.* 1547.
T. quinatum. *Hellen. diss. de Tropæolo, p.* 20. *cum tabulâ.*

A scandent herb, with numerous slender, filiform, glabrous stems, of a purplish hue, and of a nauseous bitter taste. *Root* thick, fleshy, fusiform, about the size and shape of the Altringham carrot, of a reddish brown. *Leaves* alternate, stalked, quinately parted, with oblong-elliptical, entire, membranous, slightly mucronulate segments, an inch in length, glaucous beneath, and marked with dark purple veins, with a narrow and almost stipitate base; the intermediate ones longer. *Footstalks* supplying the place of tendrils, filiform, glabrous, green, 2 inches in length, frequently twisted spirally. *Flowers* axillary, solitary, frequently resupinate, from the twisting of the peduncles. *Peduncles* ascending, filiform, red, about three inches long. *Calyx* persistent, increasing in size and thickness, as the fruit advances towards maturity; the spur funnel-shaped, of a bright orange red, its extremity clavate, filled with a honey-like fluid, and partially separated from the rest by a constriction, as if formed by a ligature, and finally withering and falling off; the limb, green, marked inside with dots and lines of a dark red colour, 5-cleft and somewhat bilabiate, with ovate, acute, nearly equal lobes, having a valvate æstivation. *Petals* 2, very small, purple, spathulate, entire, inserted in the upper lip. *Stamens* 8, unequal. *Filaments* awl-shaped, dilated at the base. *Anthers* four-sided, blunt, of 2 parallel connate cells, with involute valves. *Ovarium* 3-celled, with solitary pendulous ovula. *Style* tri-

quetrous, glabrous. *Stigma* of 3 short awl-shaped recurved teeth. *Fruit* a black juicy berry, covered with a bluish bloom, composed of 3, or from abortion, of a single monospermous carpels, nearly spherical, smooth and even, resembling in appearance, the Zante grape, and having an agreeable sweet taste. *Testa* cartilaginous, white. *Embryo* small, white. *Cotyledons* round, compressed.

This highly interesting plant is frequent in the countries bordering on the Rio de la Plata, where it was discovered by Commerson, and has been noticed by many other botanists since, but it was not until its recent introduction to the British Gardens that the peculiarities of its structure have become known, which has determined its claims to be regarded as the type of a new genus. The most remarkable peculiarity is in the nature of its fruit, which is a black, juicy berry, not unlike, both in appearance and flavour, the Zante grape. Besides the reduced number of its petals, a character the importance of which I am not disposed to insist much upon, the genus likewise differs in the persistent nature and valvate æstivation of its calyx, that of *Tropæolum* being imbricate and deciduous.

I am inclined to think that *Tropæolum dipetalum* of the *Flora Peruviana* will prove to be a second species of this genus, and it is possible that *Tropæolum* may include the types of other genera, when the nature of the fruit in the different species becomes better known.

It is stated in the Garden Catalogues to have been introduced in 1824, but this information is erroneous, the plant having been first raised by our much-esteemed friend Mr. Neill in 1830, from seeds collected at Buenos Ayres by Mr. Tweedie, and it flowered for the first time in his choice collection at Canonmills, near Edinburgh, in the Autumn of 1832. The plant having been placed in the open border early in the Summer of last year, it was found to thrive much more vigorously than when retained in the greenhouse, and in August, when our drawing was taken, it was covered with a profusion of blossoms, and subsequently ripened its fruit freely.

The plant thrives well in a mixture of sandy peat and loam, and may be increased by seeds or cuttings, which last root readily planted in pure sand, and placed in a hot-bed.

The generic name is derived from χυμος, juicy, and χαρπος, a fruit, in allusion to the juicy nature of the fruit, which forms so remarkable a peculiarity in this genus. *D. Don.*

1. Portion of the calyx showing the insertion of the stamens. 2. Pistil. 3. Ripe fruit with the persistent calyx.

J. Hart del. Pub. by J. Ridgway 169 Piccadilly July 1824 F. W. Smith

ORNITHÓGALUM biflòrum.

Twin-flowered Star of Bethlehem.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. ASPHODELEÆ. *Brown prodr.* 1. *p.* 274.
ORNITHOGALUM. *Perianthium* profundè 6-partitum, æquale, persistens, patulum. *Stamina* 6, subæqualia, disco inserta. *Filamenta* compressa, apice attenuata. *Antheræ* incumbentes: *loculis* basi solutis, distinctis. *Stigma* simplex v. trilobum. *Capsula* trilocularis, polysperma. *Semina* subglobosa v. angulata, nuda.
Genus (cosmopolitanum) scapis *nudis simplicibus*, floribus *racemosis plerumque albis*, bracteis *membranaceis*.

O *biflorum*, scapo filiformi foliis longiore, pedunculis subgeminatis, bracteis brevissimis, filamentis subulatis, stylo trigono, stigmate simplici.
Scilla biflora. *Ruiz et Pavon fl. peruv. et. chil.* 3. *p.* 69. *t.* 302. *f. a. Persoon syn.* 1. *p.* 366. *Schult. syst.* 7. *p.* 558.

Bulb spherical, about the size of a shallot, the outside of a dark brown. *Scape* about a foot and a half high, filiform, solid, wiry, of a glaucous green. *Leaves* broadly linear, blunt, channelled and concave above, flaccid, recurved glaucous green, convex and slightly angular underneath, from a span to a foot long. *Peduncles* single-flowered, in distant fascicles, of 2 or 3 together, or solitary, filiform, slender, erect and spreading, disposed in a loose, terminal erect raceme. *Flowers* white, about the size of those of *Allium lacteum*, pale green outside at the base. *Bractes* very short, membranous, lanceolate, acuminate. *Perianthium* persistent, deeply divided into 6 elliptical-oblong, blunt, concave, segments, with a narrow green furrow; the inner 3 broader and longer. *Stamens* 6, equal. *Filaments* awl-shaped, compressed, white. *Anthers* yellow, cordate, incumbent, the cells opening lengthways on the inside, approximate and parallel at the top. *Ovarium* bluntly 3-sided, 3-celled, with two rows of rounded and closely packed ovula in each cell. *Style* about as long as the ova-

rium, bluntly 3-sided, thicker at the base. *Stigma* simple, truncate, minutely papillose, white.

A native of sandy hills in the Provinces of Chancay and Cercado, in Peru, where it was discovered by Ruiz and Pavon, flowering in June and July. The plant possesses no showy beauty to recommend it, but its habit is extremely graceful, and its flowers are delicate and pretty, and on these accounts well entitled to a place in the flower garden.

The persistent perianthium and other characters clearly show it to be no *Scilla*, and entirely confirm the arrangement which we have adopted.

Our drawing was taken from a plant which blossomed in Mrs. Marryat's interesting collection at Wimbledon in the beginning of April last. It should be planted in a mixture of peat and sand, and we have no doubt of its proving nearly, if not quite hardy.

For the explanation of the generic name see fol. 42 of the present series. *D. Don.*

1. Outer segment of perianthium. 2. Inner ditto. 3. Stamen. 4. Pistil. 5. Ovarium transversely cut.

247.

VIOLA pedàta; *var.* flabellàta.

Fan-leaved Violet.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. VIOLARIEÆ. *Decand. prodr.* 1. *p.* 287.
VIOLA. Suprà fol. 126.

V. *pedata*, stigmate incrassato hinc obliquè truncato, rostro brevissimo, foliis pellucido-punctatis palmati-sectis, stipulis pectinatim laceris longè adhærentibus, petalis omnibus glabris. *Decand. prodr.* 1. 291.

Viola pedata, *Linn. sp. pl. ed.* 2. *p.* 1323. *Willd. sp. pl.* 1. 1160. *Curtis, bot. mag. t.* 89. *Michaux, fl. bor. amer.* 2.151. *Andr. bot. repos. t.* 153. *Pers. synop.* 1.254. *Poiret, encycl. meth.* 8.625. *Pursh, fl. amer. sept.* 1.171. *Nutt. gen.* 1.147. *Rœm. et Schult. syst.* 5.351. *Elliott, bot. of S. Carolina and Georgia*, 1.300. *Bigelow, fl. bost.* 96. *Torrey. fl. of the Middle and Northern Sections of the United States*, 1.249. *Spreng. syst.* 1.797.

Viola virginiana tricolor, foliis multifidis, cauliculo aphyllo. *Pluk. alm.* 388. *t.* 114. *fig.* 7.

Viola digitata. *Pursh, fl. amer. sept.* 1.171.—*Roem. et Schult. l. c.* 5.351.

Viola ranunculifolia? *Poiret, enc. meth.* 8.626.—*Roem. et. Schult. l. c.* 5.352.

Viola pedata var. *Graham in edin. new. phil. journal, Decr.* 1833.

Root having a large fleshy crown. *Leaves* (1½ inch long, 2 inches across) all radical, flat, somewhat fleshy, covered on the upper surface with minute pubescence, glabrous and shining below, having many minute transparent dots, strongly nerved, nerves prominent on both sides, but especially on the upper, the outer leaves often cuneate, truncated, crenate in the centre, inciso-crenate at the sides of the abrupt termination, the others pedate, 5-7-lobed, lobes spathulate, 3-5-toothed at the apex, or entire. *Petioles* (2-3 inches long) rounded below, flat above, and there having a strong prominent rib. *Stipulæ* subulate, pectinato-ciliate, adhering to the dilated base of the petiole for nearly half their length. *Scape* (5 inches long) erect, longer than the leaves, glabrous, channelled on its inner side,

bracteate a little way above the base; *bracteæ* opposite, subulate, toothed, gibbous at the base. *Calyx* glabrous, green; leafits shortly auricled, (the two lowest every way the largest,) broad and truncated at the base, tapering to a point at the apex. *Corolla* large and very handsome; lowest petal pale lilac, white in front near the claw, obcordate, pendulous, shortly spurred; the other petals erect or reflected, elliptical, somewhat oblique, the two centre ones, and nearly the upper half of the side ones, dark velvet-purple, behind all the petals are pale lilac, nearly uniform. *Stamens* free, and anthers nearly without fallen in the specimen described, the two lowest longer than the others, apices oblong, blunt, concave on the inside, orange-yellow. *Pistil* equal in length to the lowest stamens, every where glabrous; germen conical, green; style clavate; stigma obliquely truncated, very shortly rostrate.

This plant is extremely different in its appearance from the specimen figured in Bot. Mag. t. 89, but I do not find any characters by which it can be considered specifically distinct. It is probably the variety mentioned by Pursh as having a handsome corolla, variegated with pale blue and dark purple-velvet; but this is quoted by De Candolle, on the authority of Rafinesque, as his β, which has a pubescent pistil, whereas in this it is perfectly glabrous.—I have quoted *Viola ranunculifolia* with a slight degree of doubt, merely because it is described as glabrous, which this is not on the surface of the leaves. The plant is extremely beautiful, and highly deserving of cultivation in the open border. It was introduced by Mr. Drummond from Georgia into the Botanic Garden, Glasgow, from whence it was sent to the Botanic Garden, Edinburgh, in 1832, and there it first produced a succession of flowers in the Greenhouse in the beginning of October, 1833. *Graham, MSS.*

We are indebted to Dr. Graham for the above elaborate account of this elegant violet, and to Mr. James M'Nab, for the very beautiful drawing whence our engraving was taken. The V. *digitata* is wanting in Pursh's Herbarium, but there is no doubt that the present is the plant intended, and we entirely agree with the views of our learned friend, in considering it a mere variety of *pedata*, having the lobes of the leaves more confluent than in the normal form of the species. It appears to be also identical with V. *flabellifolia* of Loddiges (Bot. Cab. t. 777.) *D. Don.*

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RANÚNCULUS millefoliàtus; *var.* grandiflòrus.

Large-flowered Milfoil-leaved Crowfoot.

Linnean Class and Order. POLYANDRIA POLYGYNIA.
Natural Order. RANUNCULACEÆ. *Juss. gen. p.* 231.
RANUNCULUS. Calyx 3 v. 5-sepalus, deciduus. *Petala* 5 v. rariùs plura, basi intùs squamulâ foveolâve nectariferâ instructa. *Stamina* et *Pistilla* indefinita. *Cariopsides* capitatæ v. spicatæ, sæpiùs mucronatæ. Herbæ *plerumque europææ, polymorphæ.*

R. *millefoliatus*, calycibus adpressis villosis, foliis tripinnato-partitis: segmentis lineari-lanceolatis acutis glabris, caule nudiusculo subunifloro adpressè piloso.
Ranunculus millefoliatus. *Vahl symb.* 2. *p.* 63. *t.* 37. *Desf. fl. atl.* 1. *p.* 441. *t.* 116. *Willd. sp. pl.* 2. *p.* 1328. *Decand. syst.* 1. *p.* 256. *prodr.* 1. *p.* 27. *Smith fl. græc. Sibth.* 6. *p.* 17. *t.* 521. *G. Don gen. syst. gard. and bot.* 1. *p.* 26. *Hooker in bot. mag. t.* 3009.
β. *grandiflorus*, floribus majoribus.

Root composed of numerous oval, blunt, fleshy tubers, intermixed with branched fibres. *Stem* mostly single-flowered, about a span high, erect, filiform, copiously clothed with adpressed hairs, furnished with one or two leaves, but occasionally naked. *Leaves* tripinnately divided, with linear lanceolate, acute, glabrous segments, of a dull green, and rather fleshy. *Footstalks* almost filiform, sparingly villous, dull purple towards the base, from 2 to 3 inches long, marked above with a narrow furrow. *Flowers* mostly solitary, of a golden yellow, varying in size, sometimes an inch and a half across. *Sepals* rounded, villous, membranous, concave, caducous. *Petals* obovate, glossy, furnished at the base with a truncate scale. *Filaments* linear, flat, glabrous, longer than the anthers. *Torus* elevated, cylindrical, scarcely half an inch long. *Carpels* nearly orbicular, compressed, glabrous, with a short, hooked, rather thick beak.

Received by Mrs. Palliser from Professor Tenore with

the name of *R. garganicus*, but we find no mention of it in any work that has come under our notice. The plant however, differs in no respect from the ordinary state of *millefoliatus*, except in its larger flowers, and moreover agrees so entirely with the figure given by Vahl, that we dare not venture to separate them. The species is nearly related to *chærophyllos*, but is distinguished by its short, oval tubers, more pointed segments of its leaves, larger flowers, and adpressed calyx. It is found in the hilly parts of Italy, Greece, and the North of Africa. The present variety is from Mount St. Angelo, anciently Garganus, in the kingdom of Naples.

The plant requires a light loamy soil, is quite hardy, and may be increased by division or by seeds.

Our drawing was taken from a plant which flowered in Mrs. Marryat's collection in April last.

The generic name is derived from *Rana*, a frog, several species of the genus being found in places where frogs abound. *D. Don.*

1 Petal. 2 Stamen. 3. Pistil.

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MORÆA tricuspis; *var*. ocellàta.

Trident-bearing Moræa.

Linnean Class and Order. TRIANDRIA MONOGYNIA.
Natural Order. IRIDEÆ. *Brown prodr.* 1. *p.* 302.
MORÆA. Perianthium profundè 6-partitum, petaloideum: *segmentis* inæqualibus: *tubo* nullo. *Filamenta* connata. *Antheræ* adpressæ. *Stigmata* 3, petaloidea, bilabiata, fissa. *Capsula* obtusè prismatica, membranacea. *Semina* subrotunda.
Plantæ (plerumque capenses) *elegantes*. Rhizoma *bulbo-tuber*. Caulis *nunc indivisus*. Folia *linearia, nervosa*. Inflorescentia *fasciculata, uniformis*. Spatha *bivalvis, pauciflora*.

M. *tricuspis*, barbata; perianthii segmentis interioribus trifidis, stigmatum lobis inæquilateri-oblongis repando- crenatis, foliis glabris.
Moræa tricuspis. *Ker in bot. mag. t.* 696. *Dryand. in hort. kew. ed.* 2. 1. *p.* 111.
Vieusseuxia tricuspis. *Spreng. syst.* 1. *p.* 165.
V. aristata. *Houtt. Linn. pfl. syst.* 11. *p.* 105. *t.* 80.
Iris tricuspis. *Thunb. diss. p.* 14. *prodr. p.* 11. *fl. capens.* 1. *p.* 289. *Jacq. coll.* 4. *p.* 99. *ic. rar.* 2. *t.* 222. *Willd. sp. pl.* 1. *p.* 231. *Persoon syn.* 1. *p.* 52.
I. tricuspidata. *Linn. suppl. p.* 98.
β. *ocellata*, flore candido, laminâ basi ocellatâ.
Vieusseuxia glaucopis. *Decand. in ann. mus.* 2. *p.* 141. *Redouté liliac. t.* 42. *Rœm. et Schult. syst.* 1. *p.* 490.
V. aristata. *Delaroch. diss. n.* 2. *p.* 34.
Iris tricuspis. *Jacq. coll.* 4. *t.* 9. *f.* 1.
I. pavonia. *Curt. bot. mag. t.* 168. (nec aliorum.)
Ferraria tricuspis. *Willd. enum.* 2. *p.* 691.

Tuber bulbiform, lateral, about the size of a filbert. *Stem* erect, about a foot high, slender, round, flexuose, solid, glabrous, geniculate, slightly striated, grass-green. *Leaves*, the radical ones about twice the length of the stem, narrow, linear, flat, ribbed and furrowed, of a glaucous green, attenuated at both ends; those of the stem, about 3, the two upper ones but partially developed, the lowest one longer than the stem, channelled, convolute at the base, ribbed beneath. *Sheaths* entire, the upper ones terminating in a bristle-shaped point. *Spathes* 2-valved, convolute, slightly ventricose, with a scariose border, finely striated, bristle-pointed, the lower one shorter. *Peduncles* compressed, about an inch and a half long. *Perianthium* deeply parted into 6 segments, the 3 outer ones broadly cuneate, entire and even at the edge, ground pure white, streaked with purple especially beneath, furnished just above the claw with a broad round azure spot, having an irregularly lobed violet border, the claws cuneate, lined with purple spots, and copiously bearded with yellow hairs; 3 inner ones

scarcely half the length, cuneate, convolute, erect, of an olive colour towards the base, ground white above, and spotted with violet, 3-lobed at the top, the lateral ones broad and rounded, with entire wavy margins, the intermediate one longer, linear, pointed, reflexed. *Filaments* 3, white, united into a cylindrical column, about a nail in length. *Anthers* adpressed to the back of the stigmata, linear, mucronate, with two adnate parallel cells, which are free and slightly divaricate at the base. *Ovarium* bluntly 3-sided, half an inch long, 3-celled, with three rows of ovules in each cell. *Stigmas* 3, petaliform, ligulate, bilabiate, cloven, with oblong semi-lunar connivent lobes, irregularly repand and crenate at the outer edge, white and veiny, pale blue, and glabrous at the base, the outer lip very short, truncate with 2 teeth.

This very elegant variety, which is not surpassed in beauty by any of its congeners, has been regarded as a species by De Candolle, Sprengel, and others, but we can perceive no difference, except colour, whereby to distinguish it from *tricuspis*, to which in our opinion it has been very properly united by Jacquin, Thunberg, and Ker. Colour, which in many exogenous families is almost a certain indication of a specific distinction, will be found a very fallacious character among the *Irideæ*, and we fear that many botanists, both ancient and modern, have been led to multiply species among the *Monocotyledones* by relying on this deceitful test. We are satisfied that a careful investigation will considerably reduce the species, of most of the larger genera, in the latter class.

It is a mistake to suppose that to cultivate the Cape *Irideæ* a greenhouse is necessary, all that they require is protection from frost, and this can be best done by a frame, which may be removed entirely in fine weather. A warm sunny border should be selected for their culture, and the earth removed to the depth of a foot or 18 inches, and replaced by a mixture of vegetable mould and river sand. The bulbs should be taken up in the Autumn, and replanted about the middle of January, the larger ones being carefully selected from the rest. The earth will require to be renewed every two or three years.

Our drawing was taken at Colvill's Nursery, in May last.

The genus was named by Philip Miller after Mr. Robert More of Shrewsbury, a zealous cultivator of rare plants, and originally written *Morea*. We have however, followed the orthography of Linnæus, who probably intended by it to commemorate his wife, whose name was Moræus, but who, from all accounts, appears to have illmerited this compliment on the part of the husband. *D. Don.*

Outer segment of perianthium. 2. Inner ditto. 3. Organs of reproduction.

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F. W. Smith del. et Sculp.
Pub. by J. Ridgway 169 Piccadilly Aug 1 1834

LOPHOSPÉRMUM Rhodochiton.

Purple Lophospermum.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. SCROPHULARINÆ. *Brown prodr.* 1. *p.* 433.
Trib. 2. ANTIRRHINEÆ. *D. Don in linn. trans.* 15. *p.* 351. *Chavann. monogr. p.* 73.
LOPHOSPERMUM. Suprà fol. 68.

L. *Rhodochiton*, foliis cordatis acuminatis grossè dentato-serratis, calycibus semi-5-fidis coloratis, corollâ tubulosâ, filamentis simplicibus.
Rhodochiton volubile. *Zuccarini.*

A climbing, suffrutescent plant, clothed with straight white jointed shining hairs, terminated by a small gland. *Stems* filiform, slender, branched; the younger branches dark purple. *Leaves* alternate, distant, stalked, cordate, acumirate, lobed and serrated with broad unequal mucronate teeth, 5-nerved, soft and rather slimy to the touch, purple beneath, about three inches long, and nearly the same in breadth, the older ones becoming somewhat fleshy, and almost glabrous; posterior lobes rounded, toothed, connivent, and occasionally overlapping each other. *Footstalks* from 2 to 3 inches long, filiform, purple, marked above with a shallow furrow, often spirally twisted. *Flowers* axillary, solitary, pendulous. *Peduncles* slender, filiform, pale purple, from 3 to 5 inches long, frequently twisted spirally, finally becoming, together with the calyx, glabrous and shining. *Calyx* large, campanulate, widely spreading, membranous, pale purple, divided to the middle into 5, ovate, pointed lobes. *Corolla* funnel-shaped, of an intense purple, an inch and a-half long, clothed with white glandular hairs; tube 5-sided, clothed internally with reversed bristly hairs; faux cylindrical, scarcely ventricose; limb 5-lobed, lobes oval, connivent, plain and entire at the margin, rounded at the

apex, the lower one longer. *Stamens* 4, didynamous, extending beyond the mouth of the tube, there being no rudiment of a fifth. *Filaments* straight, filiform, the base thickened, and copiously beset with reversed, bristly hairs. *Anthers* violet, 2-lobed, the cells opening lengthways, confluent at the top. *Pollen* white, farinaceous. *Ovarium* globose, bilocular, seated on an orbicular fleshy disk, copiously clothed with glandular hairs. *Style* filiform, purple, nearly glabrous. *Stigma* white, 2-lobed, the lobes very short, blunt, and copiously papillose. *Capsule* sphœrical, 2-celled, bursting irregularly at the top. *Seeds* numerous, flat, the testa thick and spongy, with elevated plaits of cellular tissue, and having a broad, membranous, torn border, truncate at both ends.

This very beautiful new climber is a native of Mexico, and was introduced to Germany about two years ago, and from the Royal Botanic Garden, at Berlin, it has found its way into the collections of this country. Professor Zuccarini has named it *Rhodochiton volubile*, but we have been unable to find any description of it by that botanist. The plant is clearly a legitimate species of *Lophospermum*, and differs in no respect from the other two species, both also natives of Mexico, except in its less deeply divided calyx, and in the more cylindrical tube of its corolla.

Our drawing was taken from a fine plant, which blossomed in Mrs. Marryat's collection, at Wimbledon, in June last.

The plant may be increased both by seeds and cuttings, and will require the same treatment as the L. *erubescens*, and is apparently quite as hardy as that species.

Our knowledge of the ripe fruit is derived from specimens kindly communicated to us by Mr. F. Otto, Junior, of Berlin.

The generic name will be found explained at fol. 68, *D. Don*

1. Stamens, with a portion of the corolla. 2. Pistil.

Jad. Nat. del. Pub. by J. Bridgway 169 Piccadilly Aug.t 1834. F.H. Smith sc.

DIAPÉNSIA lappónica.

Lapland Diapensia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. POLEMONIACEÆ.

DIAPENSIA. Calyx 5-partitus, coriaceus, basi tribracteatus. *Corolla* hypocrateriformis: *tubo* brevi, ampliore: *limbo* plano, 5-fido. *Stamina* 5, sinubus corollæ inserta, subsessilia. *Antheræ* lineares, obtusæ, biloculares, basi insertæ, longitudinaliter dehiscentes. *Stigma* obsoletè trilobum. *Capsula* 3-locularis, polysperma.

Herbæ (borealis,) *cæspitosa, sempervirens.* Folia *alterna, ad radicem conferta, coriacea, integerrima.* Pedunculi *scapiformes, solitarii, uniflori.*

Obs. Genus Phlogi affine, sed abundè differt corollâ breviore, stigmatis lobis concretis, capsulæ loculis polyspermis, foliis alternis, et inflorescentiâ. *D. Don Mss.*

D. *lapponica*, foliis lineari-spathulatis coriaceis glabris margine callosis subrevolutis, pedunculo subunifloro erecto, staminibus muticis.

Diapensia lapponica. *Linn. fl. lappon. n.* 88. *t.* 1. *f.* 1. *fl. suec. ed.* 1755. *n.* 169. *sp. pl. ed.* 1762. 1. *p.* 202. *Oed. fl. dan. t.* 47. *Lam. ill. t.* 102. *Willd. sp. pl.* 1. *p.* 795. *Pers. synops.* 1. *p.* 185. *Sims in bot. mag. t.* 1108. *Aiton hort. kew. ed.* 2. *vol.* 1. *p.* 305. *Nuttall gen.* 1. 123. *Ræm. et Schult. syst. veg.* 4. *p.* 356. *Bigelow florul. boston. p.* 83. *Torrey fl. of the middle and northern sections of United States,* 1. *p.* 231. *Wahlenb. fl. lapp. no.* 105, *t.* 9. *fl. suec. p.* 122. *Spreng. syst. veg.* 1. *p.* 623.

Diapensia obtusifolia. *Salisb. parad. lond. t.* 104. *Pursh fl. amer. sept.* 1. *p.* 147.

Stems short, cespitose. *Leaves* crowded, linear-spathulate, glabrous, dark green above, paler below, avenous, coriaceous, concave, and having membranous edges at the base, towards the apex the edges are callous and slightly revolute. *Peduncles* (1 inch long) terminal, generally single-flowered, having at the apex 3 or 5 oblong, concave, adpressed bracteæ, gradually approaching the appearance of the calyx leafits. *Calyx* 5-phyllous, leafits umbricated, obovato-spathulate, emarginate, slightly keeled, the three outer the largest.

Corolla white, hypocrateriform, longer than the calyx. *Tube* wide, hypogynous. *Limb* (½-inch across) 5-parted, segments rounded, as long as the tube. *Stamens* 5, shorter than the limb. *Filaments* subulato-linear, adhering to the whole length of the tube, erect or slightly connivent from the fissure between the lobes. *Anthers* yellow, 2-cells, cells divaricated at the base, and opening along their outer edge; pollen granules small, oblong. *Pistil* as long as the stamens. *Stigma* capitate. *Style* tapering. *Germen* ovate, 3-locular. *Ovules* very numerous, attached to central receptacles.

This Plant was raised at the Botanic Garden, Edinburgh, from seeds gathered on the Rocky Mountains, North America, by Mr. Drummond, in the last expedition of Captain Franklin, and flowered in April, having been kept in the open border, and occasionally covered with a hand-glass. It is one of several alpine species, which are met with near the summit of the White Hills, New Hampshire, mountains far removed from any other of sufficient elevation to produce them. It is not easy to conjecture why such plants as this are scattered so widely into similar climates of the old and new world, while the profusion of Heaths, which the former possesses, does not afford a single species to America. *Graham, MSS.*

For the above account of this interesting little alpine plant, we are indebted to our learned and estimable friend, Dr. Graham, whose generous sentiments and devotion to science are well appreciated by those who enjoy the pleasure of his acquaintance. The drawing is from the accurate pencil of Mr. James M'Nab, whom an ardent love of botany has led to visit the wilds of America.

Diapensia was the Greek name of the Sanicle, and was given by Linnæus in the *Flora Lapponica*, without any good reason, as he himself confesses, to the elegant little plant now before us. *D. Don.*

F. W. Smith del. et sculp. Pub. by S. Arlington by Piccadilly Aug 1. 1834.

CAMPÁNULA garganica.

Garganian Bell-flower.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order CAMPANULACEÆ. *Brown prodr.* 1. *p.* 559.
CAMPANULA. Suprà. fol. 80.

C. *garganica*, caulibus diffusis, foliis reniformi-cordatis inciso-serratis, pedunculis subbifloris, laciniis calycinis lanceolatis acuminatis dentatis corollâ rotatâ vix brevioribus.
Campanula garganica. *Ten. fl. neap. prodr. append.* 1827. *Alph. Decand. monogr. p.* 299.
C. elatines. *Petagn. inst. bot.* 2. *p.* 367.
C. garganica, saxatilis, hirsuta, pendula, longiùs radicata, amplo rotundo folio, flore parvo cœruleo D. Micheli. *Till. cat. hort. pis. p.* 29.

Plant perennial, tufted, of a grass green, glabrous and shining, or sometimes hairy. *Stems* many, filiform, branched, leafy, about 3 inches high. *Leaves* on long narrow footstalks, reniform or cordate, deeply serrate, with rounded nearly equal mucronulate teeth, membranous, the posterior lobes connivent; those of the stem smaller, cordate, on shorter footstalks. *Flowers* disposed in a racemose panicle. *Peduncles* slender, filiform, about an inch long. *Calyx* hemispherical, angular, glabrous, the segments nearly equal, lanceolate, acuminate, spreading and recurved, finally becoming revolute, and generally furnished at the base with two opposite sharp teeth. *Corolla* rotate, rather longer than the calyx, of a cobalt blue, the limb deeply divided into 5 ovate-lanceolate, acute, recurved segments. *Stamens* 5, shorter than the corolla. *Filaments* flat, membranous, white, hairy on the inside, broader at the base. *Anthers* linear, yellow. *Ovarium* 3-celled. *Style* rather declinate, cylindrical, white, longer than the corolla. *Stigma* clavate, pale blue, of 3 semi-cylindrical, papillose cohering lobes, as long as the style.

This pretty little *Campanula* was discovered by Professor Tenore on Mount St. Angelo, anciently Garganus, in the kingdom of Naples, and named by him after that locality

to which it appears to be peculiar. It was raised in the Bishop of Rochester's garden at Bromley, from seeds sent to Miss Murray, from Naples, by the Honourable William T. H. Fox Strangways, and thence plants have been liberally distributed to various collections. Our drawing was taken from a plant in full flower, communicated by Mr. Mallison from Sandridge Park, the seat of Sir Samuel Scott, Bart. There is a variety with hairy leaves, mentioned by Tenore, which has also been raised at Bromley. The species comes very near to C. *elatines* of Linnæus, but appears to be sufficiently distinct.

The plant is admirably adapted for a rockwork, and appears to thrive best in a mixture of peat and loam. It is readily increased by division. As the plant is apt to suffer from too much wet, I would recommend one or two to be kept in pots in the frame during winter.

For the explanation of the generic name, see fol. 80, *D. Don*.

1. Stamens and Pistil. 2. Stamen separate.

Corrections in Numbers for March and July.

No. 58, Fol. 232. SOLLYA HETEROPHYLLA.

I was led, partly by an inspection of the ovarium, and partly by the description of Labillardière, (who appears only to have seen it in the young state,) to describe the fruit of this plant as capsular, but having had an opportunity of examining samples of the fruit which ripened at Mr. Knight's during the past summer, I now find that it is a berry, and that its structure differs in no respect from that of *Billardiera*, with which genus the plant must be again combined. I would propose the following additions to the description.

Folia primordialia serrata. Fructus pollicaris, cylindraceus, baccatus, pulpâ molli sapidâ refertus, 4-locularis, polyspermus, stylo persistenti coronatus. Semina suborbiculata, compressa, fusca, punctata, in pulpam nidulantia.

No. 62. VIOLA PEDATA.

Fol. 247, line 11, overleaf, for *fallen*, read *pollen*.

CLEMATIS montana.

Mountain Virgin's Bower.

Linnean Class and Order. POLYANDRIA POLYGYNIA.
Natural Order. RANUNCULACEÆ. *Juss. gen. p.* 231.
CLEMATIS. Suprà fol. 217.

C. *montana*, pedunculis unifloris aggregatis ebracteatis, foliis ternato-partitis: segmentis ovato-oblongis acuminatis inciso-dentatis, sepalis elliptico-oblongis mucronalatis patulis.
Clematis montana. *Ham. Mss. Decand. syst.* 1. *p.* 164. *prodr.* 1. *p.* 9. *Wall. pl. asiat. rar.* 3. *p.* 12. *t.* 217. *Royle illustr. himal. bot. p.* 51.
C. anemoniflora. *D. Don prodr. fl. nepal. p.* 192. *G. Don syst. gard. and bot.* 1. *p.* 9.

This is a large, branching, climbing shrub, with a thick deciduous ash-coloured bark. The younger parts in the native specimens are clothed with soft white hairs, but in the cultivated plant they are nearly glabrous. *Branches* filiform, striated, occasionally tinged with purple. *Leaves* tufted, stalked, alternately parted, with ovate-oblong, acuminate, recurved, deeply toothed, pale-green, veiny, concave segments, paler and shining below, the base entire and scarcely attenuated. *Footstalks* an inch long, nearly cylindrical, furrowed above with a narrow line. *Flowers* copious, about the size and form of those of *Anemone sylvestris*. *Peduncles* solitary, erect, one-flowered, filiform, about 3 inches long, destitute of bractes. *Sepals* 4, elliptical-oblong, spreading, mucronulate, and sometimes slightly crenulate at the apex, an inch in length, pure white, with prominent veins, faintly stained with pink outside at the base. *Filaments* numerous, equal, nearly cylindrical, white. *Anthers* linear, obtuse, shorter than the filaments, pale yellow. *Pistils* approximate in a cylindrical column. *Ovaries* exteriorly ventricose, glabrous, shining, reddish brown. *Styles* clothed with long,

white, silky hairs. *Stigmas* yellowish green, copiously papillose, recurved, blunt, convex above, and marked along the middle with a very narrow furrow. *Torus* elevated, hairy.

Flowering specimens of this highly ornamental plant were obligingly communicated to us, in May last, by Lady Sarah Amherst, from Montreal, Kent, the seat of her noble father.

The species was originally collected by Dr. Francis Hamilton, at Chitlong, in the Valley of Nepal, flowering in April, and it appears to be a pretty general plant on the mountains, at an elevation of, from 5000 to 7000 feet above the level of the sea, as our learned friend Mr. Royle informs us in his valuable illustrations of the Botany of the "Himalayan Mountains," a work which may be consulted with much advantage by the botanist, and still more by the general reader who desires to make himself acquainted with the natural productions of those regions of which it treats.

The plant proves to be quite hardy, and seems to flourish as well in the climate of England, as on its native mountains. It loves a loamy soil, and is readily multiplied by layers. The generic name will be found explained at fol. 217. *D. Don.*

1. Stamen. 2. Pistil.

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IRIS Swertii.

Swerts Iris.

Linnean Class and Order. TRIANDRIA MONOGYNIA.
Natural Order. IRIDEÆ. *Brown prodr.* 1. *p.* 302.
IRIS. Suprà fol. 56.
* *Barbatæ, perianthii laciniæ interiores amplæ conniventes, ovario obtusè trigono, spathis scariosis.* Sp. normales europææ.

I. *Swertii*, barbata; caule multifloro tereti foliis altiore, perianthii laciniis replicato-undulatis; exteriorbus recurvatis oblongo-spathulatis emarginatis; interioribus subrotundo-ovalibus majoribus.
Iris Swertii. *Lam. dict.* 3. *p.* 296. *ill.* 1. *p.* 121. *Vahl. enum.* 2. *p.* 130. *Persoon syn.* 1. *p.* 51. *Ræm. et Schult. syst.* 1. *p.* 461. *Redouté liliac.* 6. *t.* 306.
I. aphylla γ. *Ker in bot. mag. t.* 870.
I. latifolia minor oris cœruleis, et *eadem* oris dilutè purpureis. *Tournef. inst.* 1. *p.* 358.
I. alba, oris cœruleis. *Swert. florileg. t.* 41. *f.* 1.

The whole herbage is of a glaucous hue. *Root* thick, fragrant. *Stem* erect, round, from a foot to 18 inches high, bearing about 3 flowers, and rather longer than the leaves. *Leaves* broadly exsiform, slightly falcate, an inch or more in width. *Flowers* sessile, or nearly so, about half the size of *I. germanica*, white, and marked, especially at the borders, with numerous contiguous transverse streaks, of a pale purple or violet. *Spathes* oblong-lanceolate, acute, thin and scariose, white, as long as the tube of the perianthium, which is angular, green, marked with purple lines, and about the length of the ovarium. Outer segments of the perianthium oblong-spathulate, recurved and spreading, plaited and waved at the border, slightly notched at the top, furnished at the claw with copious, erect, white hairs, tipped with yellow; the 3 inner segments are broadly elliptical, with a contracted claw, the edges more wavy and recurved. *Filaments* blue. *Anthers* linear-oblong, pale yellow. *Ovarium* oblong, with 3 blunt angles. *Stigmas* violet, cloven,

with pointed entire lobes, the outer lip very short, truncate, emarginate and slightly revolute.

A very elegant *Iris* long cultivated in the gardens, but of its origin and native country nothing certain is known. It is very nearly related to *germanica*, from which it is chiefly distinguished by the smaller size of all its parts, and by the narrower and wavy segments of its perianthium. We have not remarked whether the flowers are fragrant.

Mr. Bellenden Ker has proposed to combine *plicata*, *nudicaulis*, and the present under the name of *aphylla*; but, although we are disposed entirely to concur in this view of our acute and learned friend, we have followed Lamarck for the present, being convinced that the whole genus requires a thorough revision from a comparison of living specimens, to settle, on satisfactory principles, the limits of the species; and we are the more induced to take this course, as the name of *aphylla* must be dropt; that ambiguous species having been entirely taken up by Linnæus from Caspar Bauhin, whose *Iris latifolia, caule aphyllo*, evidently refers either to *germanica* or *pallida*.

Mr. William Swainson, who has devoted considerable attention to the study of this genus, has recognized three distinct types or forms, the European, Asiatic, and American, which, with few exceptions, appear to be perfectly natural.

Our drawing was taken from a specimen that blossomed at Mr. Knight's Nursery, in May last. *D. Don.*

1. Stamen. 2. Pistil. 3. Ovarium separate.

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W. Nab del.
Pub by J. Ridgway 169 Piccadilly Sep 1. 1830
F. W. Smith

NIEREMBÉRGIA aristàta.

Bristle-pointed Nierembergia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. SOLANEÆ. *Brown prodr.* 1, *p.* 443.
NIEREMBERGIA. Suprà fol. 172.
* *Corollæ tubo filiformi, fauce coarctatâ, staminibus erectis subæqualibus summo tubo insertis, stigmate complanato.* Nierembergiæ propriæ.

N. *aristata*, glabriuscula; foliis linearibus acuminatis, calyce subulato aristato corollæ tubo breviore, stigmate peltato!

The whole plant sparingly clothed with minute pubescence, of a pale green. *Stems* slender, filiform, wiry, glossy, from 3 to 9 inches high, much branched, and spreading. *Leaves* narrow, linear, bristle-pointed, recurved, channelled above, from 1 to 2 inches long; the lower ones spathulate, mucronulate, flat, shorter. *Flowers* the largest of this section, placed singly opposite the leaves, and arranged in the form of a raceme. *Peduncles* filiform, half an inch long. *Calyx* tubular, turbinate, 10-ribbed, the interstices membranous; segments linear-subulate, acuminate, bristle-pointed, recurved, harsh and rigid to the touch, shorter than the tube of the corolla. *Corolla* white, suffused with purple, with the mouth of a deeper colour, exteriorly glandular; tube filiform, rather exceeding an inch in length; limb spreading, 5-lobed, plaited, concave, an inch and a half in diameter; lobes rounded, slightly crenulate at the margin, the lower one larger. *Stamens* 5, about equal, inserted in the mouth of the tube, approximate around the stigma. *Filaments* linear, white, sparingly glandular. *Anthers* yellow, bilocular, the cells opening lengthways, and divergent at the base. *Style* slender, capillary, smooth, attenuated at the base. *Stigma* orbicular, peltate, convex, viscid, and slightly

2-lobed above. *Ovarium* bilocular, obsoletely 4-sided, surrounded at the base by a cup-shaped slightly crenulate disk. *Ovula* numerous, attached to two fleshy placentæ.

A native of sandy plains on the banks of the Parana, where it was discovered by Mr. Tweedie, and from seeds transmitted by him to Mr. Neill, the plant was raised in the garden at Canonmills in 1832. The drawing was taken by our friend Mr. James M'Nab in the month of August last year. In habit it comes very near to *gracilis* and *filicaulis*, but is essentially distinguished from these, as well as from every other species of this section, by its broad orbicular, not compressed stigma, which is entirely that of the section *Petunia*. The form of the corolla is but a character of secondary importance among the *Solaneæ*, as is evinced by the variety which occurs in *Solanum*, *Nicotiana*, and in others of the larger genera.

We have remarked in this species, as well as in *filicaulis* and *gracilis*, that one of the lobes of the anthers is occasionally abortive.

The plant thrives best in a mixture of peat and sand, and roots freely at every joint, if the branches are allowed to lie on the surface of the earth.

For the meaning of the generic name, see fol. 172. *D. Don.*

1. Outline of a radical leaf. 2. Stamen with a portion of the Corolla. 3. Pistil.

N. Smith del. et sculp. Pub. by J. Ridgway 169 Piccadilly Sep. 1834

CAMPANULA divergens.

Spreading Bell-flower.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. CAMPANULACEÆ. *Brown prodr.* 1. *p.* 559.
CAMPANULA. Suprà fol. 80.

C. *divergens*, biennis, hispido-pilosa; floribus racemoso-paniculatis nutantibus, laciniis calycinis lanceolatis acutis erectis: appendicibus ovatis obtusis ovario brevioribus, corollâ campanulatâ, foliis oblongis obtusis crenulatis.
Campanula divergens. *Willd. enum.* 1. *p.* 212. *Horn. hort. hafn.* 1. *p.* 201. *Rœm. et Schult. syst.* 5. *p.* 146. *Spreng. syst.* 1. *p.* 733. *Alph. Decand. monogr. p.* 243.
C. spathulata. *Waldst. et Kit. pl. rar. hung.* 3. *p.* 286. *t.* 258.
C. cernua. *Balb. cat. hort. taur. ann.* 1813. *p.* 20.

Plant clothed with short bristly white hairs. *Root* annual. *Stem* about a span high, erect. *Branches* spreading, angular, purple. *Leaves* sessile, oblong, obtuse, wavy, and repandly crenate at the edges, scabrous, an inch or more in length, paler beneath; *radical* ones longer and flatter, spathulate, attenuated at the base into a sort of footstalk. *Flowers* numerous, drooping, in a racemose panicle. *Peduncles* an inch long, angular, flexuose, purple. *Bractes* lanceolate, acute, hispid, wavy and recurved. *Calycine segments* lanceolate, acute, erect, the borders recurved, and fringed with white hairs, the sinuses produced into ovate, obtuse, fringed, reflexed, leafy lobes. *Corolla* an inch long, or rather more, tubular-campanulate, of a deep violet, thrice longer than the calyx, glabrous and glossy exteriorly, the inside clothed with shaggy hairs, with 5 semi-ovate, mucronulate, spreading lobes. *Stamens* 5, inclosed. *Filaments* slender, with broad, ovate, acute, connivent, bearded, white bases. *Anthers* linear, yellow. *Style* twice as long as the stamens, cylindrical, purple, the upper half clothed with papillose hairs. *Stigma*

composed of 3, semicylindrical, blunt, revolute, densely papillose, greenish yellow lobes. *Ovarium* turbinate, 3-celled, irregularly angular, the angles hispid. *Disk* flat, yellow, fleshy, viscid. *Ovula* numerous, compressed.

Not surpassed in beauty by *C. Medium*, which it resembles in habit, and by several botanists it has even been regarded as the normal state of that species. It occurs wild in Hungary, Transylvania, the Bannat of Temeswar, and also in Siberia. It was first taken up by Willdenow in his enumeration of the plants cultivated in the Royal Gardens at Berlin, and is principally distinguished from *C. sibirica* by its more branching habit, less wavy leaves, and larger flowers.

Our drawing was taken from a very fine specimen which blossomed in Mrs. Marryat's collection in the beginning of June, and which could not have borne less than from 50 to 60 flowers. The plant delights in a light gravelly, or chalky soil, and produces its seeds abundantly. It occurs frequently in gardens under the name of *pulcherrima*, but whether it is identical with the plant so called by Schrank we are uncertain. *D. Don.*

1. Stamens and Pistil. 2. Stamen separate.

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LUPINUS nanus.

Dwarf Lupine.

Linnean Class and Order. DIADELPHIA DECANDRIA.
Natural Order. LEGUMINOSÆ. *Juss. gen. p.* 345.
LUPINUS. Suprà fol. 12.

L. *nanus*, hirsutus; foliolis subseptenis lineari-lanceolatis acutiusculis canaliculatis, calycis labio inferiore emarginato; superiore bipartito, leguminibus glabris.
Lupinus nanus. *Dougl. Mss. Benth. in hort. trans. v.* 1. *n. s. p.* 409. *t.* 14. *f.* 2.

Root fibrous, annual. *Stem* about a span high, slightly branched at the base, filiform, hollow, clothed, like the rest of the plant, with long, white, simple, spreading hairs. *Leaves* composed of, from 5 to 7, linear-lanceolate, channelled, hairy leaflets, with a sharp recurved point, scarcely an inch long, attenuated at the base. *Footstalks* about an inch and a half long, filiform, hairy, broader and compressed at the base. *Stipules* linear, hairy, erect, attenuated, but scarcely pointed at the top, dark purple, inclining to black, about 3 lines in length. *Flowers* in distant whorls, of about 5 together, on short cylindrical purple pedicels, and disposed in a loose terminal raceme of 2 or 3 inches in length. *Bractes* lanceolate, rather blunt, concave, membranous, very hairy, longer than the calyx, and having a persistent callous articulated base. *Calyx* of 2 lips, membranous, hairy, purplish; upper lip deeply cloven, with pointed segments; lower one emarginate. *Corolla* the wings broad, of an azure blue, folding over the keel, which is white, acuminate, and fringed at the upper edges with silky hairs, the point greenish and shaded with a livid purple; vexillum rounded, truncate, with the sides azure, shaded with purple, and folded back, the disk white, marked with a few linear spots of dark purple. *Sta-*

mens monadelphous. *Filaments* pale green. *Anthers* orange, of the 5 shorter stamens linear, with parallel cells, of the longer 5 nearly reniform. *Ovarium* glabrous, compressed, shining. *Style* awl-shaped, glabrous. *Stigma* fringed with white hairs.

This pretty little Lupine was gathered in California by Mr. Douglas, and by him introduced to the garden of the Horticultural Society, whence seeds have been distributed to various collections.

Our drawing was taken at Mr. Knight's Nursery, in the latter end of May.

The plant is a hardy annual, thriving in any light soil, and is found to produce seeds freely.

For the explanation of the generic name, see fol. 12. *D. Don.*

1. Wings. 2. Keel. 3. Stamens and Pistil. 4. Pistil separate.

[illegible] Oct 1 1834

RHODODENDRON ferrugineum; *var.* album.

White-flowered Rusty-leaved Rosebay.

Linnean Class and Order. DECANDRIA MONOGYNIA.
Natural Order. ERICACEÆ.
Trib. 2. RHODOREÆ. *D. Don in edinb. phil journ. July,* 1834.
RHODODENDRON. Suprà fol. 10.
* *Calycis limbo abbreviato. Corolla tubuloso-campanulatâ. Stamina* 10. *Folia sempervirentia, coriacea.* Normales.

R. *ferrugineum*, foliis glabris subtùs leprosis, corollis infundibuliformibus. *Linn. sp. pl. p.* 562. *Mill. dict. n.* 2. *Jacq. obs.* 1. *p.* 26. *t.* 16. *fl. austr. t.* 255. *Scop. carn. n.* 479. *Willd. arb.* 284. *sp. pl.* 2. *p.* 603.
R. foliis ellipticis, glabris, subtùs rubiginosis. *Hall. helv. n.* 1015.
Azalea maculis ferrugineis subtùs adspersa, floribus decandris. *Lemonier. Sauv. monsp.* p. 57.
Ledum alpinum, foliis ferreâ rubigine nigricantibus. *Bauh. pin. p.* 468. *Raii hist. p.* 1005.
Euonymus Theophrasti. *Dalech. hist. p.* 271.
Chamærhodendros montana Allobrogum lentiscifolia. *Lob. ic. p.* 366.
β. *album*, floribus niveis.

A very dwarf shrub, scarcely more than a foot high. *Branches* glabrous, covered with a pale yellow bark. *Leaves* oblong-lanceolate, obtuse, with a minute yellow glandular point, glabrous shining, pale green, and veiny above, covered beneath with rusty brown scales. *Corolla* pure white, tubular, with oblong, blunt, wavy, spreading, equal lobes. *Filaments* awl-shaped, glabrous, white. *Anthers* orange yellow. *Style* glabrous, greenish yellow.

We are indebted to Mrs. Marryat for the opportunity of publishing a figure of this very delicate and scarce variety of an old inhabitant of the gardens.

The plant whence our drawing was taken, blossomed in the beginning of June last, and we had never before remarked

the variety in any other collection, except in that of the above-mentioned lady. It had probably been originally obtained from the Pyrenees, where, according to the accurate Bauhin, the white variety is frequent.

The generic name will be found already explained at fol. 10. *D. Don.*

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1. Stamen. 2. Pistil.

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PENSTÈMON speciòsus.

Showy Penstemon.

Linnean Class and Order. DIDYNAMIA ANGIOSPERMIA.
Natural Order. CHELONEÆ.
PENSTEMON. Suprà fol. 211.

P. *speciosus*, glaberrimus; foliis integerrimis; radicalibus spathulatis; caulinis superioribus sessilibus lineari-oblongis obtusis, corollæ fauce prominenti nudâ, filamento sterili elongato imberbi.
Penstemon speciosum. *Dougl. Mss. Lindl. in bot. reg. t.* 1270.

Plant perennial, herbaceous, perfectly glabrous. *Stem* upright, rather stiff, about 3 feet high, obsoletely four-sided, of a pale glaucous green, but occasionally shaded with purple. *Leaves* rather fleshy, coriaceous, obtuse, entire, 3 or 5 inches long, dark green and glossy above, paler beneath; the lower ones spathulate or lanceolate, flat, attenuated at the base, with linear, bluntly keeled petioles, of an inch or two in length; upper ones sessile, broadly linear, 5 or 6 inches long, scarcely an inch wide, concave, and occasionally folded above, furnished below with a prominent midrib, the edges cartilaginous and somewhat waved. *Flowers* disposed in a long, terminal, loose, racemose panicle, with the branches in distant pairs, and bearing from 7 to 11 blossoms. *Peduncles* angular, glabrous, an inch long. *Calyx* of 5, ovate, acuminate, imbricate, glabrous segments, having the edges white and rather membranous; the upper one broader, recurved. *Corolla* perfectly glabrous and glossy, both within and without, rather stiff, about 2 inches long, and of a brilliant cobalt blue; tube nearly cylindrical, longer than the calyx; faux inflated, white below, convex above; lower lip of 3 reflexed lobes, with the edges wavy and folded back, the upper part within prominent and purple; upper lip of 2 broader, connivent, recurved lobes; lobes rounded, quite en-

tire. *Stamens* 4 fertile, didynamous. *Filaments* compressed, arched, white, stained with purple, the lower pair longest; sterile one straight, as long as the shorter pair, white, glabrous, with a pale blue compressed, cuneate apex. *Ovarium* ovate, oblong, green, shining. *Style* slender, filiform, deep purple. *Stigma* small, blunt, white.

By far the most beautiful of this showy genus, discovered by Mr. Douglas on the banks of Spoken river in North-west America, and introduced by him to the garden of the Horticultural Society, in 1827. The plant is still rare in collections, from the sparing manner in which it affords slips, and from its seeds being seldom matured, except under favourable circumstances. It is found to succeed best in a mixture of peat and loam, and continues in flower the greater part of the summer.

Our drawing was taken from a plant which blossomed in Mrs. Marryat's Collection in June last.

The generic name is derived from πεντε, five, and στημων, stamen, from the presence of the rudiment of a fifth stamen. *D. Don.*

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1. Outline of radical leaf. 2. Lower cauline leaf. 3. Portion of the corolla with the sterile stamen. 4. Fertile stamens. 5. Pistil.

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ÉBENUS crética.

Cretan Ebony.

Linnean Class and Order. DIADELPHIA DECANDRIA.
Natural Order. LEGUMINOSÆ. *Juss. gen. p.* 345.

EBENUS. Calyx persistens, ultra medium 5-fidus, tubo demùm subventricoso, laciniis lineari-subulatis corollam æquantibus. *Corollæ alæ* minimæ tubo calycis ferè breviores. *Stamina* monadelpha. *Legumen* subrotundum, 1-2-spermum.

Folia *sæpiùs pinnata cum impari sessili.* Stipulæ *a petiolo distinctæ.* Pedunculi *axillares elongati.* Spicæ *densæ.* Flores *rubelli.* Genus ab Anthyllide distinctum alis minimis, laciniis calycinis longioribus et habitu ferè Onobrychidis. *Decand. prodr.* 2. *p.* 350.

E. *cretica,* fruticosa, foliis rariùs 3-foliolatis sæpiùs pinnatis bijugis cum impari sessili, foliolis oblongo-linearibus, stipulis connexis et ideò bifidis oppositifoliis, spicis ovato-cylindraceis. *Decand. l. c.* 2. *p.* 350.

Ebenus cretica. *Linn. sp. pl. p.* 1076. *Prosp. Alpin. exot. p.* 279. *t.* 278. *G. Don. syst. gard. and bot.* 2. *p.* 309.

Anthyllis cretica. *Lam. dict.* 1. *p.* 203. *Willd. sp. pl.* 3. *p.* 1019. *Sims in bot. mag. t.* 1092.

A. fruticosa, foliolis ternatis ac quinatis lanceolatis tomentosis. *Sauv. monsp. p.* 237.

Trifolium spicis ovatis villosis, caule fruticoso. *Roy. lugdb. p.* 380.

Barba jovis Cytisi folio, flore rubello. *Barr. ic. t.* 377 *et* 913.

Loto affinis alata, folio et facie pentaphylloides fruticosi, floribus in spicam longiorem positis. *Pluk. alm. p.* 227. *t.* 67. *f.* 5.

Cytisus incanus creticus. *Bauh. pin. p.* 390.

A small bushy evergreen shrub, from a foot to 18 inches high, the younger parts silvery, with copious adpressed silky hairs. *Branches* angular. *Leaves* stalked, ternate or quinate. *Leaflets* oblong-spathulate, mucronulate, flat, an inch long, obscurely nerved below, the lateral ones seated on very short, pale green, partial stalks, which are jointed at the base. *Petioles* persistent, narrow, channelled above, convex beneath, broader at the base, from half an inch to an inch in length. *Stipules* 2, concrete, persistent, membranous, sca-

riose, partially enveloping the branch, terminating in a long bristle-shaped point. *Spikes* axillary, solitary, stalked, ovate-oblong, erect, about 3 inches long. *Flowers* sessile, scattered. *Bractes* ovate, concave, persistent, scariose, shorter than the calyx, furnished with a long, slender point. *Calyx* companulate, membranous, with 5 long, slender, awl-shaped, feathery, nearly equal teeth, exceeding the corolla in length. *Corolla* of a lake red. *Vexillum* broad, obcordate, with folded sides, and marked with deeper coloured veins, with a whitish cucullate base. *Keel* compressed, hollow, saccate, truncate and notched at the top, auriculate at the base, formed of 2 concrete petals. *Wings* very short, nearly abortive, dolabriform, truncate. *Stamens* diadelphous, nearly equal. *Filaments* glabrous, almost white. *Anthers* oblong, orange. *Ovarium* round, slightly compressed, copiously silky. *Style* slender, capillary, glabrous. *Stigma* a minute dot. *Pod* enclosed in the calyx, with one, or more rarely 2 seeds.

A very elegant little shrub, with much the habit of an *Onobrychis*, and well suited to ornament rockwork, being found to be perfectly hardy, and growing in almost any kind of light of earth. It is increased by seeds and cuttings.

The plant is abundant on the Sphachian mountains, in Candia, and was sent to Prosper Alpinus by a correspondent in that Island, as the *Ebenus fruticosa* of Theophrastus, which most probably meant the *Medicago arborea*. The ebony of commerce is well known to be the wood of *Diospyros Ebenum*. D. Don.

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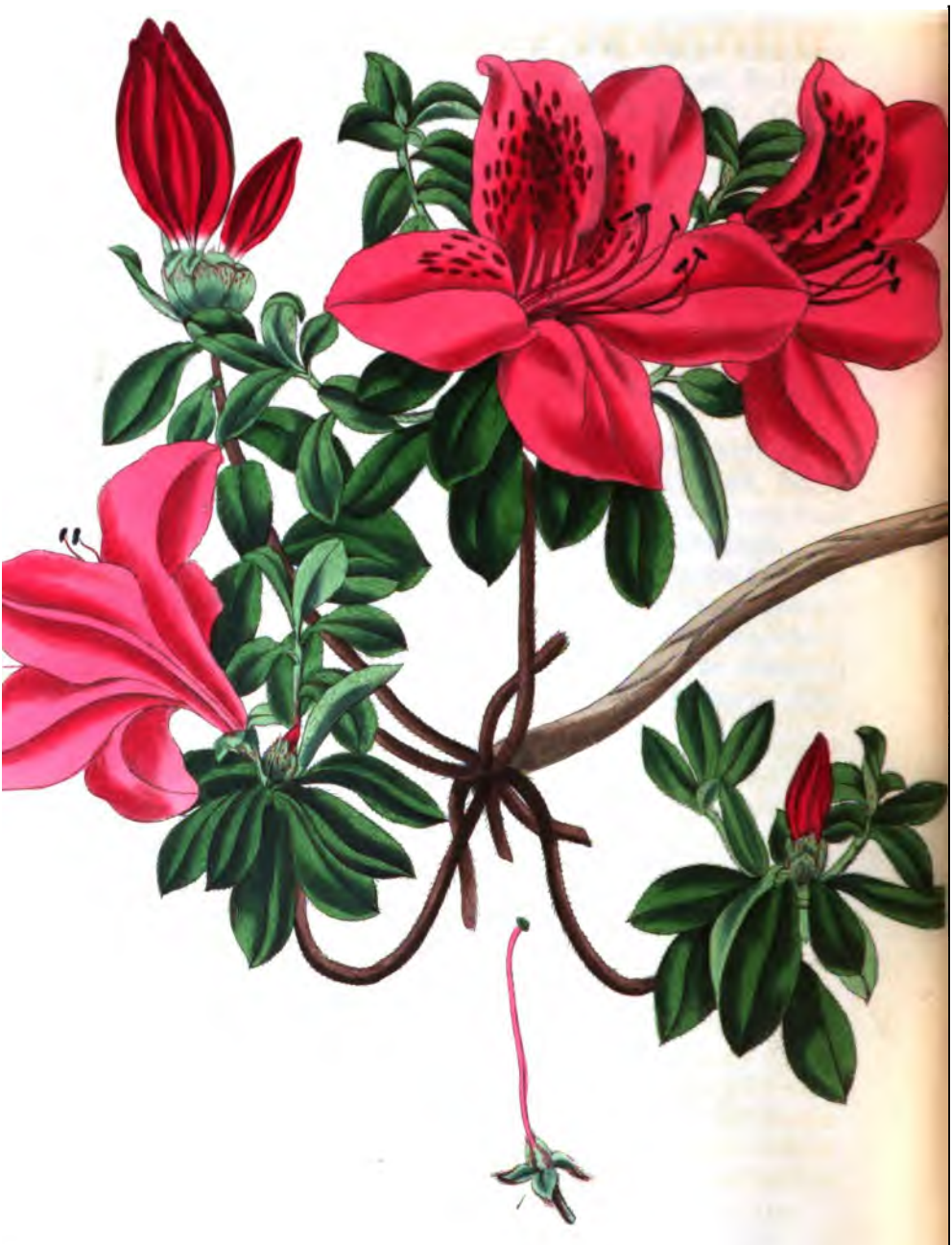
1. Calyx and bracte. 2. Stamens. 3. Pistil.



[illegible] Published by Ry Sweedilly Nov 1 1834.

RHODODENDRON macranthum.

Large-flowered Chinese Rosebay.

Linnean Class and Order. DECANDRIA MONOGYNIA.
Natural Order. ERICACEÆ.
Trib. 2. RHODOREÆ. *Don in edinb. phil. journ. July*, 1834, *p.* 152.
RHODODENDRON. Suprà fol. 10.

R. *macranthum*, pentandrum, appressè setosum; foliis obovato-oblongis planis nitidis, laciniis calycinis lanceolatis acutis inciso-dentatis! pilosis, corollâ tubuloso-campanulatâ glabrâ.
Rhododendron macranthum. *G. Don syst. gard. & bot.* 3. *p.* 846.
Azalea macrantha. *Bunge enum. pl. chin. in act. petrop.* 1833. p. 115.
A. indica; lateritia. *Lindl. in bot. reg. t.* 1700.

A procumbent shrub, dividing at the base into a number of long, naked stems, clothed with a pale brown deciduous bark, terminated by a bundle of 10 or 12 branches, which are again subdivided in the same manner. *Leaves* obovate, or spathulate, stalked, attenuated at the base, rather membranous, spreading varying from half an inch to an inch and a half long, dark green and shining above, paler beneath, and, as well as the branchlets, thinly clothed, on both sides, with adpressed, rufous, shining, bristly hairs. *Flowers* solitary or in pairs, terminating the branches. *Peduncles* rather thick, cylindrical, as well as the bractes, densely hairy, about half an inch in length. *Calyx* of 5 lanceolate, acute, deeply-toothed, recurved, leafy segments, clothed exteriorly with silvery hairs, the inner surface naked. *Corolla* large, broadly funnel-shaped, of a deep salmon colour; tube short, with 5 blunt angles; limb spreading, about 2 inches across, with 5 oblong-elliptical, obtuse, entire, recurved, wavy lobes, the upper one marked with spots of a deeper colour. *Stamens* 5, rather shorter than the corolla, declinate. *Filaments* slender, cylindrical, glabrous, the colour of the corolla. *Anthers* short,

almost black. *Ovarium* hairy, 5-celled. *Style* about as long as the stamens, declinate, filiform, glabrous. *Stigma* capitate, viscid.

A remarkably showy species but recently introduced from China, and distinguished from *R. indicum* by the reduced number of its stamina, by its lanceolate, acute, deeply-toothed calycine segments, and by its smaller obovate or spathulate leaves, characters which appeared to us to be uniformly constant in all the specimens that we examined. The natural habit of the plant appears to be procumbent, and its flowers continue to be produced for a longer period than in any other species. The later flowers are frequently four-cleft and tetrandrous.

We have seen no authentic specimen of the *Azalea macrantha* of Bunge, but we feel pretty certain of the identity of the two plants. The leaves in this, as in several of the allied species, are often approximated in twos or threes, but never really opposite. Our drawing was derived from a plant which blossomed at Mr. Tate's Nursery, Sloane-street, Chelsea, in June last. It requires the same treatment as the other Chinese kinds, and may be increased by layers or by cuttings. The generic name will be found explained at fol. 10. *D. Don.*

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1. Calyx & Pistil.

W. Smith del. et sc.

Pub. by S. Baguay 15 y Piccadilly Nov. 1 1834

CALCEOLÁRIA crenatiflòra; *var.* knypersliensis.

Knypersley Slipperwort.

Linnean Class and Order. DIANDRIA MONOGYNIA.
Natural Order. SCROPHULARINÆ.
Trib. 5. CALCEOLARIEÆ.
CALCEOLARIA. Suprà fol. 220.

C. *crenatiflora*, herbacea, perennis; foliis ovato-oblongis rugosis hirsutis grossè dentatis, floribus corymbosis, laciniis calycinis latè ovatis ovarioque glandulosis, corollæ labio inferiore subrotundo inflato crenato.
Calceolaria crenatiflora. *Cavan. ic.* 5. *p.* 28. *t.* 446. *Hooker in bot. mag. t.* 3255. *Lindl. in bot. reg. t.* 1609.
C. anomala. *Persoon syn.* 1. *p.* 16.
C. pendula. *Sweet suprà fol.* 155.
β. *knypersliensis*, corollæ labio inferiore anticè toto ferè fulvo-purpureo.

Stem about a span high, filiform, clothed with glandular pubescence. *Leaves* broadly ovate-oblong, spreading, stalked, attenuated at the base, veiny and wrinkled, about a span long, 3 or 4 inches broad, coarsely and unequally toothed, hairy on both sides, ribbed and paler below. *Flowers* copious, corymbose. *Bractes* ovate-oblong, acute, entire. *Pedicels* filiform, an inch or an inch and a half long, copiously glandular, as well as the calyx, which has 4 broadly ovate, slightly acute segments. *Corolla* of a bright yellow; lower lip large, orbicular, with 3 or 5 indentations, having a large patch of a chocolate brown; upper lip short, helmet-shaped, truncate with a brown border, folded over at the edges; mouth also of a chocolate brown. *Filaments* very short, stout, glabrous, white. *Anthers* cream-coloured. *Ovarium* short, conical, green, copiously glandular. *Style* about the length of the ovarium, compressed, glabrous. *Stigma* truncate.

This fine variety is a hybrid offspring between *C. crenatiflora* and *atrosanguinea*, and was raised by my brother, Mr. P. N. Don, at Knypersley Hall, Staffordshire, the seat of James Bateman, Esq. My brother states it to be of more robust growth than *crenatiflora*, with shorter and rounder flowers. He finds it to grow well in a mixture of leaf mould and sand, and that, like the rest of the genus, it loves the shade.

It can only be increased by slips. The generic name is explained at fol. 220. *D. Don.*

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1. Calyx & Pistil. 2. Portion of the corolla with the stamens.

2

SILENE chloræfolia.

Chlora-leaved Catchfly.

Linnean Class and Order. DECANDRIA TRIGYNIA.
Natural Order. CARYOPHYLLEÆ. *Juss. gen. p.* 299.
SILENE. Suprà fol. 40.

S. *chloræfolia*, perennis, glabra, glauca; foliis inferioribus spathulatis acuminatis; superioribus cordatis amplexicaulibus, calycibus clavatis lævibus, petalorum laminis cuneatis dilatatis appendicibusque bipartitis.
Silene chloræfolia. *Smith ic. ined. t.* 13. *Willd. sp. pl.* 2. *p.* 707. *Sims in bot. mag. t.* 807. *Marsch. à Bieb. fl. taur. cauc.* 1. *p.* 341. *Decand. prodr.* 1. *p.* 381. *G. Don syst. gard. & bot.* 1. *p.* 12.
Lychnis orientalis viscosa, Centaurei lutei folio, flore longissimo. *Tournef. cor. p.* 24.

Plant perennial, slightly suffruticose, glabrous, glaucous. *Stems* many, dichotomously branched, erect, geniculate, a span to a foot high; joints swollen, somewhat sphærical; the interstices filiform, about 2 inches long. *Leaves* the lower ones and those of the barren shoots stalked, spathulate, plain, rather fleshy, about an inch and a half long, terminated by a long, sharp, occasionally twisted point; upper ones broadly ovate, acuminate, sessile, the uppermost cordate, acuminate, slightly waved, and embracing the stem. *Peduncles* about 2 inches long, filiform, single-flowered, viscid; *Calyx* clavate, about an inch long, with 10 obsolete angles, membranous, pale green, faintly stained with purple, with 5 erect, ovate teeth, having a broad scariose white border. *Petals* 5, glabrous, of a clear white above, the underside of a pale, livid purple; claws linear, green, considerably longer than the calyx; lamina divided into 2 broadly cuneate entire even lobes. *Coronal appendages* of 2 oblong blunt entire segments. *Filaments* 10, glabrous, with attenuated purple points. *Anthers* linear, incumbent, white. *Ovarium* oblong-cylindrical, green trilocular, but slightly attenuated at the top,

scarcely longer than the torus. *Styles* 3, filiform, glabrous. *Stigmata* twisted, spreading, longitudinally papillose, purple. *Torus* half an inch long, cylindrical, green.

A native of Georgia and the Eastern Caucasus, and frequent in stoney places on the slopes of hills about Tiflis. It was originally taken up by Smith from a specimen gathered by Tournefort in Armenia. Although long ago introduced to the gardens, it is by no means so common as it deserves to be. It is a hardy perennial, delighting in a light loamy soil, and from its habit admirably suited for a rockwork. Its large white blossoms, which expand only in the evening, or in cloudy weather, are produced during the greater part of the summer. The plant is readily increased either by cuttings or seeds.

Our drawing was taken at the Chelsea Botanic Garden, in June. For the explanation of the generic name see fol. 40. *D. Don.*

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1. Petal 2. Stamens & Pistil.

1
2
3

GÍLIA tricolor.

Three-coloured Gilia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. POLEMONIACEÆ. *D. Don in edinb. phil. journ.* 1822. *p.* 56.
GILIA. Suprà fol. 218.

G. *tricolor*, foliis bipinnato-partitis: segmentis subulatis, floribus corymboso-paniculatis, corollâ calyce duplò longiore: laciniis apiculatis, antheris cordatis muticis.
Gilia tricolor. *Bentham in bot. reg. fol.* 1622. *ad calcem. et in trans. hort. soc. n. s.* 1. *t.* 18. *f.* 3. *Lindl. in bot. reg. t.* 1704.
β. Floribus albicantibus.

Stem much branched, from 3 to six inches high, copiously furnished, like the rest of the plant, with short glandular hairs. *Leaves* scattered, about an inch long, bipinnately divided, with awl-shaped pointed segments. *Flowers* arranged in a loose corymbose panicle. *Filaments* cylindrical. copiously glandular. *Calyx* tubular, with ovate-lanceolate, acuminate, spreading teeth, the sinuses white and scariose. *Corolla* funnel-shaped, twice the length of the calyx; tube yellow, with a pale, almost white, expanded base; throat somewhat campanulate, of a deep purple; limb concave, with a white ground, shaded more or less with blue, the lobes broad, rounded, cuneiform, mucronulate, traversed by numerous parallel branched nerves. *Stamens* 5, inserted just below the sinuses of the limb; free part of the filaments slender, awl-shaped, glabrous, nearly white. *Anthers* cordate, blunt, erect, blue. *Ovarium* oblong, 3-sided, 3-celled. *Ovules* numerous, angular. *Style* filiform, slender. *Stigmata* 3, semicylindrical, obtuse, recurved, copiously papillose along their inner surface.

A very pretty annual, discovered by Mr. Douglas, in California, and introduced by him to the garden of the Horticultural Society, in 1833, whence seeds have been liberally distributed to various collections. The plant is quite hardy, and as it perfects its seeds freely, we hope soon to see it as common an ornament to the flower border as its less showy congener *Gilia capitata*.

Our drawing was taken about the end of June last, at the Nursery of Messrs. Allen and Rogers, at Battersea, where there was also a white variety of the same species, a portion of which is represented in our plate. We have remarked that the flowers have often the rudiments of 5 sterile stamina alternating with the fertile ones.

It will thrive in any light soil, and requires to be treated like other hardy annuals.

The generic name is already explained at fol. 218. *D. Don.*

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1. Corolla laid open. 2. Pistil. 3. White variety.

ANIGOZÁNTHOS Manglèsii.

Mr. Mangles's Anigozanthos.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. HÆMODORACEÆ. *Brown prodr.* 1. p. 299,
ANIGOZANTHOS. Perianthium superum, coloratum, tubulosum, lanatum pilis ramulosis, limbo 6-fido, laciniis subæqualibus, suprà secundis; tardiùs deciduum. *Stamina* 6, fauci inserta, adscendentia. *Antheræ* erectæ. *Ovarium* 3-loc., loculis polyspermis. *Stylus* filiformis, deciduus. *Stigma* simplex. *Capsula* 3-loc., apice dehiscens. *Semina* numerosa.
Herbæ *perennes.* Radix *fasciculato-fibrosa fibris crassis.* Caulis *integer v. suprà divisus.* Folia *ensiformia, aversa, basibus semivaginantibus.* Flores *subcorymbosi, e spicis brevibus, bracteis sub-oppositifloris.* Brown l. c. 1. p. 301.

A. *Manglesii*, caule tomento persistenti longitudinaliter vestito, antheris muticis filamento 5-plò longioribus, stigmate capitato.

Plant perennial, tufted. *Root*, composed of numerous thick fibres. *Leaves* uniform, erect, of a glaucous green, glabrous, even and entire at the edges, terminated by a sharp, brown, rigid point, varying from half a foot to 18 inches in height; and from half an inch to an inch in breadth. *Stem* erect, branched, cylindrical, from 2 to 3 feet high, clothed with a short, thick, crimsòn, persistent down, resembling velvet, and composed of branched hairs. *Flowers* arranged in short, terminal, spiked racemes. *Peduncles* very short, round, and, as well as the base of the perianthium, clothed with crimson down. *Perianthium* tubular, cylindrical, 2 or 3 inches long, often splitting longitudinally, thickly covered with short branched hairs of a green colour, except at the base, which is slightly swollen and rounded, and at the limb where they assume a yellow tint: limb erect, white above, divided into 6 ovate-lanceolate, pointed, equal segments, frequently united in pairs. *Stamens*

6, equal, inserted into the mouth of the tube, the united bases of the filaments apparently constituting the lining of that organ, the free portion very short, glabrous, flat, and dilated towards the base. *Anthers* linear, blunt, slightly recurved, bilocular, orange, five times longer than the free portion of the filaments, the cells attached along the inside, and opening lengthways. *Ovarium* globular, 3-celled, slightly adherent to the tube of the perianthium, the ovules numerous in each cell, attached to a longitudinal placenta. *Style* slender, filiform, glabrous. *Stigma* capitate, projecting considerably beyond the mouth of the tube.

This singularly beautiful species of *Anigozanthos* was raised in the garden at Whitmore Lodge, Berks, the seat of Robert Mangles, Esq. from seeds brought from Swan River by Sir James Stirling, the enterprising governor of that colony, by whom they had been presented to Mr. Mangles.

The greater length of the anthers, and the capitate stigma, essentially distinguish it from the rest of the genus.

We are indebted to Mr. Donald Mackay, Mr. Mangles' intelligent gardener, for the following particulars relative to its culture.

"The seeds were sown in August, 1833, and the young plants were potted off, and kept in an airy part of the greenhouse during winter. Early in the spring they were repotted, and in April they were planted out in a border composed of maiden loam, leaf mould, and bog earth, in equal proportions, with a slight mixture of pounded chalk, in which the plants were found to thrive amazingly, shewing flower at the age of ten months. I have tried them in bog earth alone, the same as we use for Heaths, but it will not do for them. A cold frame will protect them well enough in the winter. The slugs are fonder of it, than of any other plant that I am acquainted with." The plant affords offsets freely, and is therefore easily multiplied.

The generic name is compounded of *ανιχω* to elevate, and *ανθος* a flower, from its flowers being elevated on a naked stem.—*D. Don.*

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1. Corolla laid open. 2. Pistil, with the base of the perianthium.

[illegible] Published by [illegible], 169. Piccadilly. Dec. 1. 1894

GENISTA amxántica.

Amsantan Genista.

Linnean Class and Order. DIADELPHIA DECANDRIA.
Natural Order. LEGUMINOSÆ. *Juss. gen.* p. 345.
GENISTA. *Calyx* bilabiatus, labio superiore bipartito, inferiore 3-dentato, aut 5-lobus, lobis 3 infer. ad apicem ferè coalitis. *Vexillum* oblongo-ovale. *Carina* oblonga, recta, genitalia non omninò continens. Stamina monadelpha. *Legumen* plano-compressum aut rariùs subturgidum, polyspermum, rariùs oligospermum, eglandulosum. Frutices *floribus flavis.* Decand. prodr. 2. p. 145.

G. *amxantica,* inermis; ramulis diffusis angulatis subvillosis, foliis ovato-lanceolatis acuminatis glabriusculis, floribus spicato-racemosis, calycibus ovariisque glabris: dentibus subulatis.
Genista amxantica. *Ten. fl. napol.* 2. p. 127. t. 66. *prodr.* p. 41. *syn.* p. 62. *Decand.* l. c. 2. p. 150. *G. Don. syst. gard. & bot.* 2. p. 152.

A spreading decumbent shrub, sending forth many stems of about 2 feet in length, with angular, leafy branches, which are glabrous, or slightly hairy, especially the younger ones, and occasionally of a dull purple hue. *Leaves* simple, ovate-lanceolate, acute, veiny, varying from half an inch to an inch in length, dark green, and shining on both sides, mostly glabrous, but occasionally sparingly hairy. *Petioles* extremely short, flat, dark purple. *Stipules* minute, lanceolate, acuminate, membranous, purplish. *Flowers* numerous, of a rich golden yellow, disposed in a terminal spiked raceme. *Pedicels* very short, dark purple. *Bractes* linear-lanceolate, pointed about as long as the calyx. *Calyx* tubular, glabrous, membranous, green, stained with purple, with 5 awl-shaped teeth, of which the upper pair are rather shorter and broader.

Petals 5, about equal in length, glabrous; wings oblong, rounded; vexillum rounded-oval, cucullate, keeled behind; keel oblong, blunt, the petals disunited below. *Stamens* 10, monadelphous. *Filaments* glabrous, pale yellow, 5 shorter, with linear blunt anthers, and 5 longer with cordate ones. *Ovarium* linear, compressed, glabrous. *Style* awl-shaped, glabrous, geniculate. *Stigma* terminal, blunt, minutely papillose.

Discovered by Professor Gussone, on hills in the valley of Amsanto, not far from Frigento, in the kingdom of Naples, a spot famous for its mineral springs, and for the unhealthiness of its air, arising from sulphureous exhalations.

The species is quite hardy, and from its trailing habit, and copious clusters of golden flowers, is well suited to ornament rock-work, where it will be found to thrive luxuriantly. It may be increased, either by seeds or layers.

Our drawing was taken from a plant which flowered on the rock-work in the Botanic Garden, Chelsea, in the begining of June last.

The generic name is derived, according to some, from *genu*, the knee, from the flexibility of its branches; and by others from *gen*, a celtic word, signifying a shrub. *D. Don.*

1. Calyx, with the organs of reproduction. 2. Pistil separate.

1
2
3

GALÁRDIA pícta.

Painted Galardia.

Linnean Class and Order. SYNGENESIA POLYGAMIA FRUSTRANIA.
Natural Order. COMPOSITÆ. *Adans. fam.* 2. p. 103.
Fam. X. *HELIANTHEÆ. Cass.* Trib. Helenieæ.
GALARDIA. Radius neuter, semitrifidus. *Rhachis* tota bracteolata. *Achenia* turbinata, villosa. *Pappi paleis* 5—7, oblongis, aristatis, integris. Herbæ (Amer. bor.) *canescentes, foliis inferioribus sinuato-dentatis, capitulis terminalibus solitariis pedunculatis, involucro polyphyllo laxo subæquali, radio amplo speciosa, corollæ luciniis aristatis, bracteolis subulatis.* D. Don MSS.

G. *picta,* canescens; corollæ fauce inflatâ: laciniis elongatis radiisque aristatis, bracteolis rhacheos angulatis, pappi paleis abruptè aristatis.

Root perennial. *Stem* about 2 feet high, cylindrical, marked with several longitudinal striæ, of a paler colour, pliant and flexuose, scarcely thicker than a crow-quill, clothed like the leaves with short recumbent hairs. *Leaves* pointed, rather rough, minutely dotted, pale green, with a prominent midrib, the lower ones oblong-spathulate, sinuately toothed, attenuated towards the base, a span long; upper ones shorter, strap-shaped, entire, suddenly contracted at the base, but scarcely stalked. *Capitula* terminal, solitary, stalked. *Peduncles* filiform, striated, rough, slightly hoary towards the top. *Involucrum* composed of a quadruple series of lanceolate, acuminate, bristle-pointed, hoary, spreading leaflets, ultimately becoming reflexed; the outer ones longer. *Rays* neuter, about 13 in number, broadly wedge-shaped, 3-lobed, of a deep carmine, with a bright yellow border, the lobes abruptly bristle-pointed, glabrous above, hairy beneath, about half an inch long, spreading, and overlapping each other; tube very short, slightly compressed, hairy, pale-green; nerves 7, the lateral ones branched, that occupying the axis of each lobe straight and simple, but all becoming confluent at the top. *Florets of the disk* hermaphrodite, the tube very short, narrow, glabrous, cylindrical; faux tubular-campanulate, inflated, four times longer than the tube, copiously clothed with papillose hairs, before yellowish green, afterwards becoming dark purple; the segments awl-shaped,

erect, bristly and bearded, with an ovate base. *Filaments* linear, compressed, white. *Anthers* orange, united into a tube, terminated by an ovate-lanceolate, acute, dark purple appendage, and furnished at the base with two minute teeth. *Style* cylindrical, pale green, thickened upwards, glabrous; the branches linear, compressed, recurved, channelled above, dark crimson, appendages thrice longer than the branches, awl-shaped, dark crimson, copiously bristly, recurved. *Achenia* turbinate, clothed with copious silky hairs. *Pappus* of 6 or 7 broadly oval, scariously membranous paleæ, overlapping each other, terminated by a long rough awn, shorter than the corolla. *Rhachis* convex, copiously bracteolate; the bracteolæ awl-shaped, white, with 3 or 4 sharp angles.

This very pretty species of *Galardia* was gathered in Louisiana, by Mr. Thomas Drummond, and from seeds transmitted by that enterprising collector, the plant has been raised in various gardens. Our drawing was taken from a plant which blossomed in the collection of our worthy friend Mr. Neill at Canonmills, near Edinburgh, in August last. We have likewise been favoured, by Mr. Miller, with specimens from the Bristol Nursery, in which the colour of the flowers was much richer, from the plant having been grown in the open border. It should be planted in a mixture of peat and loam, and it may be increased, either by cuttings or by seeds, which it perfects freely in the open air. It is probable that the plant will prove little more than biennial, and therefore that by seeds will be the most satisfactory mode of multiplying the species.

The triquetrous bracteolæ, abruptly pointed pappus, and the widened throat of the corolla, essentially distinguish the species. The genus, which is entirely confined to North America, is represented in the southern division of that continent by *Cephalophora*, which is principally distinguished by its entirely naked rhachis, a character which M. Lessing has erroneously attributed to the present genus, that part being thickly studded with paleæ, in *Galardia bicolor*, and the other species.

The genus was dedicated to M. Gaillard de Charentonneau, an amateur of Botany. *D. Don.*

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1. Ray. 2. Floret of the disk. 3. Ovarium.

NIEREMBÉRGIA Atkinsiàna.

Mr. Atkins's clove-scented Nierembergia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. SOLANEÆ. *Brown prodr.* 1. p. 443.
NIEREMBERGIA. Suprà fol. 172.
** *Corollæ fauce dilatatâ sæpius ventricosâ, staminibus inæqualibus tubo medio insertis subinclusis, stigmate capitato.* Petunia.

N. *Atkinsiana*, foliis ovatis acutiusculis, laciniis calycinis ligulatis, corollæ tubo calyce duplò longiore.

Stem much branched, spreading, about 2 feet high, round, green, clothed with long, soft, jointed, glandular hairs. *Leaves* alternate, or occasionally opposite, ovate, rather acute, slightly attenuated at the base, pale green, an inch and a half long, marked by several nerves, and clothed on both sides with soft, jointed, glandular hairs, the midrib purplish below; the lower ones stalked. *Flowers* solitary. *Peduncles* axillary, filiform, an inch or two in length, copiously clothed, as well as the calyx, with jointed glandular hairs; the fruit-bearing ones longer and deflexed. *Calyx* turbinate, with 10 blunt angles, the segments leafy, ligulate, blunt, unequal, thrice longer than the tube. *Corolla* funnel-shaped, with the tube an inch and a half long, ventricose above, clothed outwardly with soft, jointed hairs; limb concave, spreading, plaited, with 5 shallow, round, blunt lobes, of a brilliant purple, outside paler and livid, the inside of the tube marked with deep violet-coloured veins. *Stamens* 5, erect, 2 longer. *Filaments* slender, glabrous, white, attached to the lower part of the tube. *Anthers* pale-purple, with 2 parallel, distinct

cells, connected at the middle by a small connectivum. *Style* slender, filiform, about the length of the longer pair of stamens, pale green, thickened upwards. *Stigma* peltate, green and viscid above. *Ovarium* ovate, bilocular, surrounded at the base by a fleshy yellow ring, with 2 prominent angles. Placentæ 2, fleshy, green. *Ovules* numerous, white.

We are indebted to Mr. Atkins, Nurseryman, Northampton, for specimens of this very showy hybrid, raised by him between *Nierembergia nyctaginiflora* and *phœnicea*. In habit it is much like the former, but the flowers are nearly intermediate between those of the two parents.

The plant would prove a great ornament in the flower border, as it blossoms most abundantly, and is as hardy as the *nyctaginiflora*. It is readily increased by cuttings. The flowers, especially in the evening, diffuse an agreeable fragrance, resembling that of the clove pink.

The generic name is already explained at fol. 268.

1. Stamens and Pistil, with a portion of the tube of the corolla.

Corrections in Numbers for August and November.

No. 63. LOPHOSPERMUM RHODOCHITON.

Fol. 250, line 2, overleaf, add: rudiment of the fifth stamen very short, placed between the longer pair, and bearing an imperfect anther at its summit.

No. 66. GILIA TRICOLOR.

Fol. 264, line 15 from the bottom, for *filaments* read *peduncles*.

1
2
3

ALSTRŒMÈRIA Salsilla.

Small-flowered Alstrœmeria.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. AMARYLLIDEÆ. *Brown prodr.* 1. p. 296.
ALSTRŒMERIA. Perianthium superum, 6-partitum: *segmentis* difformibus; 3 interioribus, quarum 2 basi tubulosa aut convolata. *Stamina* 6, inæqualia, declinata, basi laciniarum inserta. *Ovarium* adhærens, 6-gonum. *Stylus* indivisus, 3-sulcus, declinatus. *Stigmata* 3, replicata, papillosa. *Capsula* 3-locularis, polysperma: *valvis* medio septiferis. *Semina* globosa, fusca.
Herbæ (Americæ meridionalis) *perennes, radice fibrosâ v. tuberosâ.* Caulis *foliosus, erectus v. volubilis.* Folia *alterna, plerumque resupinata.* Flores *terminales, subsolitarii v. umbellati, colore varii, non spathacei.*

A. *Salsilla,* caule volubili, foliis petiolatis lineari-oblongis mucronulatis glabris, pedunculis subbifloris umbellatis, perianthii segmentis cuneatis retusis subæqualibus.
Alstrœmeria Salsilla. *Linn. sp. pl. p.* 462. *amœn. acad.* 6. *p.* 254. (excl. synon. *Hern. mex.*) *Hooker & Arnott in Beech. voy. append. p.* 47. (excl. synon. *bot. mag.*)
A. oculata. *Lodd. bot. cab. t.* 1851. *Graham in bot. mag. t.* 3344.
Hemerocallis scandens; floribus purpureis, *vulgò* Salsilla. *Feuill. peruv.* 1. *p.* 713. *t.* 6.

The whole plant glabrous. *Stems* slender, filiform, twining, varying from a cubit to a yard in length. *Leaves* oblong, or linear-lanceolate, recurved, with a blunt cartilaginous apex, and with a narrow white membranous border, many-nerved, above perfectly smooth, and of a glossy green, glaucous beneath, and copiously besprinkled with minute whitish dots, contracted at the base into a very short footstalk, which is curled at the edges, varying from an inch to two inches long. *Flowers* small, terminal, nodding, of a red purple, disposed in umbels. *Umbels* of from 2 to 12 flowers. *Peduncles* an inch long, slender, angular, frequently forked. *Bractes* thrice shorter than the peduncles, spathulate, green, with a cartilaginous, purplish, wavy and sinuose border. *Segments of the perianthium* spathulate, unguiculate, retuse and slightly emarginate; the 3 outer ones of an uniform purple,

erect and spreading, exceeding half an inch in length; inner ones with broader whitish claws, copiously papillose within, furnished at the base with an oblong callous pit of an olive colour, and at the disk with a large semicircular dark purple spot, having a whitish centre; the claws of the 2 upper ones connivent; the lower one recurved and spreading, with a narrower claw. *Stamens* 6, declined, inserted at the base of the segment of the perianthium; the 3 opposite the inner segments longer. *Filaments* awl-shaped, white, copiously furnished at the middle with papillæ. *Anthers* incumbent, 2-celled, of a brown-purple. *Ovarium* 3-celled, 3-sided, with 3 additional but scarcely perceptible angles. *Style* triquetrous, shorter than the stamens, with minute, elevated, scattered, violet dots. *Stigma* trifid, with oblong, obtuse, recurved, copiously papillose lobes. *Capsule* rounded, turbinate, 3-sided, terminated by a broad, elevated angular disk, 3-celled. *Seeds* many, globose.

That this is the plant of Feuillée no one can possibly doubt after comparing it with the figure and description of that accurate author, from whom alone Linnæus took up the species, as he never saw a specimen of it, and he has marked the plant in the *Species Plantarum*, as one with which he was unacquainted, except from the source above-mentioned. He afterwards, however, confounded with it an analogous species from the West Indies, a drawing of which he had received from Baron Alströmer, and to the latter plant the whole of the description in the *Supplementum* of the Younger Linnæus applies, and not to the Chilian plant of Feuillée, and it is also the *Salsilla* of all subsequent authors. The two plants are most essentially different both in their leaves and flowers, and we have therefore restored to the former its proper, although long-usurped appellation, leaving to the West Indian plant the name of *edulis*, first given to it by Tussac in his "Flore des Antilles."

This very elegant species of *Alstræmeria* was introduced in 1831 from Chili, where it appears to be very common, especially about Conception and Valparaiso, whence we have specimens from Messieurs Caldcleugh, Cuming, and Bridges.

The plant will be found to succeed well in a warm sheltered border. It should be planted in a soil composed of peat and loam, with a proportion of well-rotted manure, and it may be increased both by parting the roots, and by seeds.

Our drawing was taken in May 1833 from a fine plant which blossomed in Mr. Knight's choice collection, King's Road, Chelsea.

The genus was named by Linnæus after his friend and patron Baron Alströmer, a great promoter of Botany, and from whom he had received coloured drawings of some species of it. *D. Don.*

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1. Stamen. 2. Pistil. 3. Section of the Ovarium.

F. W. Smith, pt

LINUM monogynum.

Monogynous Flax.

Linnean Class and Order. PENTANDRIA PENTAGYNIA.
Natural Order. LINEÆ. *Decand. prodr.* 1. p. 423.
LINUM. Calyx 5-phyllus: *foliolis* integris. *Petala* 5. *Stamina* 5, basi monadelpha. *Styli* 5, rarò 3. *Capsula* globosa, acuminata, 10-locularis, 10-valvis: *loculis* monospermis.
Herbæ *v.* Suffrutices, *foliis integris plerumque sparsis, floribus axillaribus solitariis, aut terminalibus corymbosis v. paniculatis.*

L *monogynum*, perenne, erectum, glabrum; foliis lanceolatis acutis 3-nerviis, floribus corymbosis, foliolis calycinis ovato-lanceolatis acutis carinatis, stylis concretis!
Linum monogynum. *Forst. prodr. p.* 23.

Plant perennial, glabrous, of a glaucous green. *Stems* erect, rigid, furrowed, leafy, about a span high, branched at the top, and slightly woody at the base. *Leaves* lanceolate, acute, spreading or occasionally deflected, attenuated at the base, but scarcely stalked, 3-nerved, flat, entire, marked with numerous whitish dots, about an inch long, and 3 lines broad. *Flowers* large, campanulate, in a corymbiform panicle. *Peduncles* one-flowered, angular, half an inch long, very much thickened at the top. *Calycine leaves* ovate-lanceolate, acute, keeled, connivent, with a white, cartilaginous, entire border, the 3 outer ones rather larger. *Petals* pure white, double the length of the calyx, broadly obovate, entire, even, traversed by many forked nerves, the claws very short and callous, with a membranous border. *Stamens* 5, monadelphous, about as long as the calyx. *Fila-*

ments awl-shaped, white, united at the base into a membranous cup, and having 5 short subulate teeth (sterile stamens) alternating with them. *Anthers* linear, obtuse, cream-coloured, of two parallel connate cells. *Styles* 5, connate, longer than the ovarium. *Stigmas* 5, spreading, filiform, obtuse, minutely papillose. *Ovarium* globose, pointed, somewhat conical, smooth, 10-celled. *Ovules* solitary, elliptical, compressed, emarginate.

A very pretty perennial species, native of New Zealand, and apparently almost hardy, flowering and perfecting its seeds freely in the open border. We have compared the cultivated plant with native specimens in Forster's Herbarium, and we find them to agree in every respect. The styles are united together along their whole length.

The plant should be protected in a pit or frame during winter. A mixture of peat and loam will be found to suit it best, and it may be increased either by slips or by seeds.

Our drawing was taken from a plant which flowered in Mr. Knight's collection, King's Road, Chelsea, in June last.

The generic name *Linum* is the same with the Greek λινον, and both derived from *llin*, a thread, in Celtic. *D. Don.*

1. Calyx. 2. Stamens. 3. Stamens and Pistil.

F. W. Romith, del. et sc. Pub. by F. Pangurn, 1[illegible] Dunaway.

GARDOQUIA Hookeri.

Carolina Gardoquia.

Linnean Class and Order. DIDYNAMIA GYMNOSPERMIA.
Natural Order. LABIATÆ. *Juss. gen.* p. 110. Trib. V. MELISSINEÆ. *Bentham labiat.* p. 365.
GARDOQUIA, Calyx tubulosus, 13-nervius, subincurvus, ore æquali vel obliquo, dentibus brevibus rectis subæqualibus vel subbilabiatis. *Corollæ tubus* longè exsertus, rectus vel incurvus, intùs nudus; limbus bilabiatus, labium superius erectum subplanum emarginatum, inferius subpatens, lobis planis medio latiore. *Stamina* 4, subdidynama, inferioribus longioribus laxè adscendentia, apice subdistantia, superiora subinde sterilia. *Filamenta* edentula. *Antheræ* biloculares, loculis distinctis parallelis vel subdivergentibus. *Styli lobi* subæquales. *Achenia* sicca, lævia.
Suffrutices fruticesve *ramosissimi foliosi, sæpè procumbentes.* Flores *pulchri, sæpiùs coccinei.* Bentham l. c. p. 397.

G. *Hookeri,* fruticosa, canescens; foliis obovatis integerrimis planis subaveniis, pedunculis 1—3-floris bibracteolatis, calycis labio superiore 3-dentato: fauce intùs villis clausâ.
Gardoquia Hookeri. *Bentham l. c. p.* 401.
Cunila coccinea. *Hooker exot. fl.* 3. *t.* 163.
Melissa coccinea. *Spreng. syst.* 2. *p.* 224.

A small upright, fragrant, branched shrub, about a foot or a foot and a half in height. *Branches* slender, erect, minutely hoary. *Leaves* obovate, pointed, or rarely obtuse, minutely hoary and dotted on both sides, of a glaucous green, coriaceous, attenuated at the base, a fourth of an inch in length. *Footstalks* very short, compressed. *Flowers* axillary, solitary or in threes, seated on a very short, clavate peduncle, which is furnished at the base with 2 lanceolate acute, erect bractes. *Calyx* tubular, nearly glabrous, with 13 ribs, thrice longer than the peduncle, limb bilabiate, lower lip of 2 ovate-oblong connivent teeth, upper one broad, truncate, with 3 slightly prominent recurved teeth; the throat closed with connivent hairs. *Corolla* large, tubular, scarlet, thrice longer than the calyx, copiously hairy externally; faux ventricose; limb bilabiate, with equal extended lips, upper one concave 2-lobed,

lower one 3-lobed, the lobes short, rounded, even. *Stamens* 4, didynamous; anterior pair longest. *Filaments* compressed, white, glabrous. *Anthers* bilocular, the cells purple, hairy, attached along the margin of the broad, heart-shaped, white fleshy connectivum. *Style* filiform, white, glabrous, longer than the corolla. *Stigmas* 2, awl-shaped, acute, nearly equal, recurved, the posterior one rather shorter. *Ovarium* 4-lobed.

Gathered on the mountains of South Carolina by Mr. Alexander Gordon, a collector sent out by our friend Mr. Charlwood, to whose exertions we are already indebted for a number of equally rare and showy plants from North America, which had either never been before introduced, or had become lost to our gardens. The subject before us is a highly ornamental little shrub, and is well deserving the attention of the cultivator, both on account of the delicacy of its habit, and its large showy blossoms, which rival those of the *Salvia fulgens*. The plant thrives best in a mixture of sandy peat and loam, and is increased with facility by cuttings. It will require the protection of a frame in winter, and the pots should be well drained, and the plants plentifully supplied with water while in a growing state. The plant continues in blossom from June to October. Our drawing was taken from specimens communicated by Mr. Charlwood in August last.

It is stated in Dr. Hooker's Exotic Flora to be from Florida, but it is more than probable that this is a mistake, as it is not likely that a plant should be at the same time a native of the mountains of South Carolina, and of the low, swampy regions of the Floridas.

Nuttall took it for a *Cunila*, and called it *C. coccinea*, but this appears to have been at hazard, for it is not likely that so accurate an investigator would have referred it to a genus with which it has so few characters in common, had he seen the plant in a living state, or been furnished with perfect specimens of it.—Mr. Bentham, in his elaborate treatise on the *Labiatæ*, has rightly included it in Gardoquia.

The genus was dedicated by Ruiz and Pavon to Don Diego Gardoqui, Minister of Finance under Charles IV. of Spain, who greatly promoted the publication of the *Flora Peruviana*. *D. Don.*

1. Corolla with the Stamens. 2. Pistil.

BRUGMÁNSIA sanguinea.

Dark-red Brugmansia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. SOLANEÆ. *Brown prodr.* 1. p. 443.
BRUGMANSIA. Calyx tubulosus, ventricosus, 5-angulatus, persistens, apice coarctato 2-3-lobo. *Corolla* infundibuliformis, 5-plicata, 5-loba: *lobis* cuspidatis. *Stamina* 5, inclusa, coarctata. *Antheræ* conglutinatæ. *Stigma* crassum, bilobum, margine revolutum. *Capsula* 2-locularis, lævis, polysperma. *Semina* reniformia.
Arbores (Peruviani) *foliis petiolatis indivisis, floribus alaribus pedunculatis maximis albis v. sanguineis, fructibus ovalibus pendulis aureis.* Genus omninò, ut videtur, naturale inter Daturam et Solandram locum tenens. *D. Don. MSS.*

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1. B. *sanguinea*, foliis sinuato-lobatis subtomentosis.
Brugmansia bicolor. *Persoon syn.* 1. *p.* 216. *Rœm. et Schult. syst.* 4. *p.* 307.
Datura sanguinea. *Ruiz et Pavon fl. peruv. et chil.* 2. *p.* 15. *Kunth in Humb. et Bonpl. nov. gen. et sp. pl.* 3. p. 6.

Stem arboreous, rising to the height of from 3 to 12 feet, round, divided at the top, and clothed with an ash-coloured bark. *Branches* short and leafy, thickly clothed with white-spreading hairs. *Leaves* alternate, often geminate, ovate-oblong, obtuse, waved and sinuated, with short blunt lobes, copiously clothed on both sides with soft white hairs, above of a dark green, paler beneath, reticulated and rather wrinkled with prominent veins, and furnished with a stout rounded midrib, with lateral branches from 2 to 9 inches long, and from 1 to 5 broad, the base rounded and often unequal; the uppermost entire, but slightly waved. *Petioles* stout, from an inch to 3 inches long, nearly cylindrical, copiously hairy, slightly flattened above. *Flowers* solitary, pendulous, issuing from the forks of the branches. *Peduncles* an inch long, and as thick as a writing quill, cylindrical, copiously clothed with white hairs. *Calyx* large, ventricose, 5-angled, 5-ribbed, with prominent veins, copiously pubescent, rather contracted at the top, about 3 inches long, the limb cloven with concave lobes. *Corolla* funnel-shaped, 7 inches long, pubescent, with 15 straight prominent ribs; tube thick and fleshy, with 5 blunt angles, orange yellow, green towards the base; faux inflated, wrinkled and pitted exteriorly; limb 5-lobed, of a deep orange-scarlet, with the lobes cuspidate and spreading, each being furnished with 3 ribs, the two lateral of

which disappear before reaching the summit. *Stamens* 5, closely associated round the style. *Filaments* cylindrical, glabrous, pale green, their bases broad, flat, attached to the tube of the corolla, and clothed with shaggy hairs. *Anthers* erect, half an inch long, attached by their base, cream-coloured, obtuse, with parallel connate cells. *Ovarium* bilocular, conical, 5-sided, white, surrounded at the base by a 5-lobed fleshy disk, the parietes thick and fleshy. *Placentæ* 2, oblong, fleshy, attached to the partition. *Style* filiform, glabrous, 4 inches long. *Stigma* projecting, with 2 short, thick, rounded lobes, revolute at the edges.

It is peculiarly gratifying to us to have to record the first introduction to our collections of this truly splendid plant, which was raised last year at Hayes Place, Kent, the seat of Miss Traill, from seeds collected at Guayaquil, in the state of Equador, by Mr. Crawley, who sent them to his aunt Lady Gibbs, by whom they were presented to Miss Traill. One of the plants survived the winter in the open border, and this also happened to be the first to show flower, which it did in October last. The rest of the plants began to blossom soon after, and all apparently varying in the degree of intensity in colour. In cultivation the plant rarely exceeds four or five feet in height, and evidently possesses a hardier constitution than *arborea*. It delights in a friable rich soil, and is easily increased by cuttings. In a sheltered border with a southern aspect, we have no doubt of its flowering quite as well as if retained in the conservatory. Both species are natives of Peru, but the *sanguinea* is found at a much greater elevation than the other. The plant is also found in New Granada, and it has been introduced into Chili, as we have seen specimens collected at Conception by Captain Beechey and Mr. Cuming. In Peru it is called *Floripondio encarnado* and *Campanillas encarnadas*, and from the bruised leaves an ointment is prepared, which is said to possess superior healing properties, and from the fruit a highly narcotic intoxicating liquor is obtained.

Our drawing was taken from flowering specimens obligingly communicated by Miss Traill, in the beginning of November.

The genus was named by Persoon after S. J. Brugmans, Professor of Natural History in the University of Leyden. *D. Don.*

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1. Section of the Ovarium.

FÚNKIA lancifòlia.

Lance-leaved Funkia.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. HEMEROCALLIDEÆ. *Brown prodr.* 1. *p.* 295.
FUNKIA. Perianthium infundibuliforme, deciduum. *Stamina* 6, medio basive tubi inserta, declinata. *Antheræ* incumbentes: *loculis* parallelis, connatis. *Stylus* declinatus. *Stigma* clavatum, indivisum, trigonum. *Capsula* turbinato-oblonga, 3-locularis, 3-valvis, polysperma: *valvis* navicularibus, mucronatis, medio septiferis. *Placentæ* 2, angustatæ, dentatæ. *Semina* duplici ordine disposita, elliptico-oblonga, compressa, erecta, apice alata, umbilico obliquo, depresso, basilari: *testâ* laxâ, atrofuscâ, membranaceâ, fragilis: *albumen* copiosum, cartilagineum, hyalinum. *Embryones* 6-10! teretes, breves, inæquales, (unico forsan adolescenti,) ad umbilicum sitos, albuminis unicâ cavitate inclusos, et a basi communi oriundos. (*Br.*)
Herbæ (japonicæ) *perennes, radice fibrosâ.* Caulis *simplex.* Folia *petiolata, dilatata, nervosa.* Flores *racemosi, cernui, cœrulei v. albi.*
In seminibus *F. cœruleæ* embryones 3 sæpiùs inveni.—*D. Don MSS.*

F. *lancifolia*, foliis lanceolatis acuminatis 7-nerviis basi attenuatis, racemo paucifloro, perianthii limbo turbinato tubo longiore: laciniis oblongis patentibus.
Funkia lancifolia. *Spreng. syst.* 2. *p.* 41.
Hemerocallis lancifolia. *Thunb. in linn. trans.* 2. *p.* 335.
Gibboosi altera, folio angustiori, flore autumnali. *Kæmpf. amœn. p.* 863.

Root perennial, fibrous, white. *Stems* erect, cylindrical, simple, slender, smooth, green, from a span to a foot high. *Leaves* lanceolate, pointed, 7-nerved, 4 or 5 inches long, scarcely an inch broad, smooth on both sides, grass green above, paler beneath, attenuated at the base, the margin entire and cartilaginous; radical ones on short channelled, winged footstalks; those of the stem sessile. *Flowers* about 4 or 5, drooping, in a loose, terminal, unilateral raceme. *Peduncles* very short, cylindrical, green. *Bractes* solitary, leafy, ovate-lanceolate, acuminate, smooth,

green, 5-nerved. *Perianthium* pale purple, funnel-shaped, tube half-an-inch long, cylindrical, narrow, paler, the limb turbinately campanulate, 6-cleft, gradually attenuated into the tube, which it thrice surpasses in length, the lobes are oblong, or oblong-lanceolate, somewhat acute, and marked with 4 or 5 deeper coloured nerves. *Stamens* 6, declinate, nearly equal, shorter than the perianthium, attached to the base of the tube. *Filaments* slender, glabrous, white. *Anthers* short, incumbent, yellow, composed of 2 parallel connate cells. *Ovarium* oblong, 3-sided, green. *Style* filiform, white, declinate, longer than the stamens, rather thicker at the apex. *Stigma* blunt, undivided.

An interesting addition to our hardy flowers from Japan, whence it was introduced last year by Mr. Knight of the Exotic Nursery, King's Road, Chelsea, where our drawing was taken in August last. It is well distinguished from *cærulea* by the form of its leaves and flowers. Thunberg seems to have confounded both these, as well as *alba*, in the *Flora Japonica*, and in the second volume of the Linnean Transactions, where he first separates *lancifolia*, he continues to confound them with the *alba*. The three are essentially different. The *alba* has the stamina inserted into the middle of the tube of the perianthium. In a number of mature seeds of *cærulea*, which I examined, I found but 3 embryos. They were united together at the base, the central one being considerably larger than the rest, and apparently the only one likely to vegetate.

The genus was named by Sprengel after Henry Christian Funck, an apothecary at Gefrees, in the principality of Bayreuth, in the Prussian States, the discoverer of several new mosses, and who has published fasciculi of dried specimens of the cryptogamous plants of Germany. *D. Don.*

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1. Pistil.

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VICIA polysperma.

Many-seeded Vetch.

Linnean Class and Order. DIADELPHIA DECANDRIA.
Natural Order. LEGUMINOSÆ. *Juss. gen. p.* 345.
VICIA. Calyx 5-dentatus, dentibus 2 superioribus brevioribus. *Corolla* papilionacea. *Stamina* diadelpha. *Stylus* filiformis. *Stigma* sub apice undique barbatum. *Legumen* oblongum, 1-loculare, polyspermum. *Semina*, hilo ovali v. lineari, laterali, rarò terminali.
Herbæ (hemisph. boreal.) *plerumque scandentes.* Folia *pinnata, cirrhosa.* Stipulæ *sæpè sagittatæ.* Pedunculi *axillares elongati v. breves uniflori.*

V. *polysperma*, foliolis multijugis elliptico-oblongis, mucronatis, stipulis lunatis argutè dentatis, pedunculis multifloris angulatis, stigmate penicillato, leguminibus lineari-lanceolatis compressis glabris, seminibus globosis.
Vicia polysperma. *Ten. fl. neap. prodr. append.* 5. *p.* 22. *fl. nap. t.* 175. *syll. pl. fl. neap. p.* 361.

The whole herb glabrous, and of a grass green. *Root* perennial. *Stems* many, scandent, rising to the height of 3 or 6 feet, 4-angular, furrowed, the joints occasionally stained with dark red. *Leaflets* of about 8 pair, alternate, elliptical-oblong, with a short, abrupt, bristly point. *Tendrils* composed of 5 long, filiform, revolute, hooked and pointed segments. *Stipules* lunate, with sharp spinous teeth. *Peduncles* angular, glabrous, about as long as the leaf. *Racemes* loose, of about twelve flowers. *Pedicels* scattered. *Calyx* tubular, smooth, green, sometimes stained with purple, the 3 lower teeth linear-lanceolate, acuminate, straight, slightly ciliated ; 2 upper ones ovate, mucronate, very short, connivent, glabrous. *Vexillum* pale purple, marked with deeper coloured veins, obcordate-oblong, with the sides folded back. *Keel* and *Wings* nearly white, the former shorter, ventricose, blunt, cloven, and marked with dark blue at the top, traversed by conspicuous veins; the

latter half-cordate, rounded, entire at the top, the basal lobe folded and saccate. *Filaments* white, glabrous, the tenth separate. *Anthers* oblong, yellow, equal. *Ovarium* linear, glabrous. *Style* compressed contrary to the ovarium, white. *Stigma* brush-like, bearded all round with white spreading hairs. *Legumes* linear-lanceolate, pointed, many-seeded, compressed, glabrous, attenuated at the base, about two inches long. *Seeds* from 14 to 20, globose.

Our drawing of this very pretty Vetch was taken from Mrs. Marryat's collection at Wimbledon in June last. The plant had been raised from seeds received by Mrs. Palliser from Professor Tenore, who discovered it in a wood on the road to Bagnuoli in the kingdom of Naples. It appears to come very near to our native *V. sylvatica*, and indeed its characters are hardly marked enough to separate it; but even should it prove to be only a variety of that species, its beauty will nevertheless entitle it to a place in the flower border. It should be planted in a gravelly loam, and is easily multiplied by seeds, which it perfects abundantly. We would recommend the seeds to be sown where the plant is intended to remain, as few of the *Leguminosæ* bear to be disturbed when once planted.

The word *Vicia*, employed by Pliny and other Roman authors to denote a species of this genus, is of doubtful origin, and occurs in most of the languages of Europe with little variation. *D. Don.*

1. Keel. 2. Wing. 3. Stamens. 4. Pistil. 5. Pod.

2

LILIUM tenuifolium.

Fine-leaved Lily.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. LILIACEÆ. *Brown prodr.* 1. p. 295, *in notâ.*
LILIUM.—Suprà fol. 185.

L. *tenuifolium*, perianthio revoluto: foliolis lævibus basi sulco bivalvi munitis, pistillo staminibus duplò breviore, capsulis turbinatis rotundis, foliis lineari-angustissimis.
Lilium tenuifolium. *Fisch. MSS. Schrad. pl. rar. hort. gætt. fasc.* 1. *Ræm. et Schult. syst.* 7. p. 409. *Hooker in bot. mag. t.* 3140.
L. radice tunicata, foliis sparsis, floribus reflexis, corollis revolutis. *Gmel. sib.* 1. p. 42. *n.* 9.
L. reflexum, montanum, humile, angustifolium, aurantium. *Amm. ruth. n.* 138.

Bulbs about the size of a walnut, rather coated than scaly. *Stem* erect, from a span to a foot high, slightly angular, scarcely thicker than a crowquill, copiously besprinkled, as well as the rest of the plant, with minute crystalline dots, which give it a glaucous hue. *Leaves* rather crowded, especially towards the top of the stem, disposed in a spiral manner, occasionally verticillate, very narrow, linear, bluntish, dotted, of a glaucous green, somewhat twisted, glabrous, with a narrow silvery edge, marked above with a shallow furrow, the keel blunt, bearing at the base a tuft of long, soft, jointed, spirally convolute, and finally pendulous hairs; the primordial ones lanceolate, acute, nerved, shining, attenuated towards the base, and somewhat stalked. *Flowers* mostly solitary in native specimens, but often 3 or 5 in cultivated plants, about half the size of those of *L. chalcedonicum*, and of the same rich minium red. *Peduncles* wavy, spreading, filiform, glabrous, an inch, or an inch and a half long, slightly thickened at the apex. *Perianthium* 6-petaloid, the

leaves sessile, equal, oblong-lanceolate, scarcely apiculate, revolute, glossy, furnished at the base with a rather wide furrow, the edges of which are thin, connivent, valvate, and papillose. *Stamens* 6, equal. *Filaments* awlshaped, glabrous, of a pale red, connivent at the base, spreading at the top, shorter than the leaves of the perianthium. *Anthers* incumbent, about 2 lines long, of a brown purple. *Pistil* shorter than the stamens. *Ovarium* triquetrous. *Style* triquetrous, about the length of the ovarium. *Stigma* capitate, 6-lobed, the lobes connivent and minutely papillose. *Capsule* scarcely an inch long, rounded-oval or turbinate, swollen, membranous, marked by 6 faint lines, 3-celled, 3-valved, the angles round, even, not keeled. *Seeds* brown, flat, dotted, with a narrow, membranous border.

In delicacy of foliage, brilliancy of flowers, and gracefulness of habit, the present is not surpassed by any others of this highly ornamental genus. It is a native of the vast steppes of Siberia, where it appears to be abundant, but it is never found to extend beyond the 55 degree of north latitude. The bulbs are eaten by the wandering Tartars.

It had been confounded by Pallas, and most other botanists, with *L. pomponium*, from which it is easily distinguished by its smooth sepals, and by the more rounded angles of its capsule. Dr. Fischer first determined it to be a distinct species, and gave it the very apt name which it now bears. In *L. chalcedonicum* the sepals are warted, and the angles of the capsules keeled at the top. The whole plant is likewise much larger, the leaves broader, and the flowers nearly double the size. Our drawing was taken from specimens which flowered in the Botanic Garden, Chelsea, where the plant was unusually luxuriant. *D. Don.*

1. Primary leaf. 2. Portion of a leaf magnified.

3
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DABŒCIA polifolia; *var.* alba.

White-flowered Irish Heath.

Linnean Class and Order. OCTANDRIA MONOGYNIA.
Natural Order. ERICACEÆ. subtrib. 2. ANDROMEDEÆ. *Don in edinb. phil. journ. July* 1834, p. 152.
DABŒCIA. Calyx 4-partitus. *Corolla* ovalis, ventricosa, limbo 4-dentato. *Stamina* 8, inclusa. *Filamenta* dilatata, glabra. *Antheræ* lineares, basi sagittatæ: *loculis* parallelis, apice solutis, longitudinaliter dehiscentibus. *Stigma* simplex, truncatum. *Capsula* 4-locularis, septicido-dehiscens, submembranacea. *Placenta* prismatica. *Semina* subrotunda, ventricosa, gilva, lævia, chalazâ parvâ notata.
Fruticulus (Hiberniæ et Pyrenæor.) *sempervirens.* Folia *elliptica, plana! subtùs niveo-tomentosa.* Flores *terminales, racemosi, purpurei.* Don in l. c. p. 160.

D. polifolia. *Don in l. c. p.* 160. *G. Don, gen. syst. gard. & bot.* 3. p. 833.
Menziesia polifolia. *Juss. in ann. mus.* 1. p. 55. *Persoon syn. l. p.* 419. *Smith engl. fl.* 2. p. 223.
M. Dabeoci. *Smith comp. fl. britt.* p. 70.
Andromeda Dabœcia. *Linn. syst. veg. ed.* 13. p. 338.
Erica Dabœcii. *Linn. sp. pl.* p. 509. *Huds. angl.* p. 166. *Thunb. diss. n.* 1. *Willd. sp. pl.* 2. p. 383. *Smith engl. bot. t.* 35. *fl. britt.* 1. p. 420.
Vaccinium cantabricum. *Huds. angl. ed.* 1. p. 143.
E. cantabrica, flore maximo, foliis myrti pilosis subtùs incanis. *Tournef. inst.* p. 603.
E. hibernica, foliis myrti pilosis subtùs incanis. *Petiv. gaz.* p. 42. *t.* 27. *f.* 4.
Erica s. Dabœcia hibernis. *Raii dendr.* p. 98.
β. alba, tota pallidior; floribus albis.

A dwarf, erect, bushy, evergreen shrub, rarely exceeding two feet in height. *Branches* pale brown, leafy, copiously clothed with glandular spreading hairs. *Leaves* stalked, ovate-lanceolate, mucronulate, attenuated at the base, revolute at the margin, white and downy beneath, dark green and veiny above, and sparingly beset with short bristly hairs, from 3 to 6 lines long, and from 2 to 3 broad. *Footstalks* short, pale green, channelled above, and fringed

at the margin. *Racemes* terminal, solitary, many-flowered, from 3 to 9 inches long. *Flowers* drooping. *Peduncles* filiform, straight, copiously clothed with glandular viscid hairs. *Bractes* lanceolate, pointed, shorter than the peduncles. *Calyx* deeply 4-partite; segments lanceolate, acuminate, fringed with glandular hairs. *Corolla* oval, ventricose, slightly pubescent, with 4 short lobes, most commonly lilac, but occasionally varying to dark red, or pure white, as in the variety now before us. *Stamens* 8, inclosed. *Filaments* flat, white, glabrous, broader and imbricate at the base. *Anthers* longer than the filaments, of a dark brown, the cells parallel, free at the top, opening lengthways, produced at the base into a short mucronulate spur. *Style* slender, longer than the ovarium. *Stigma* slightly capitate. *Capsule* ovate, hairy and glandular, 3 lines long, the valves rather membranous.

The present very beautiful variety was gathered in the county of Mayo, by our valued friend Mr. J. T. Mackay, in 1832. The flowers are rather larger than in var. *a*, and they are produced in equal abundance. The plant requires a peat soil, and is easily propagated by layers and by cuttings, so that it will soon become as common in our collections as it deserves to be.

The variety *a* grows wild at Old Head, on Croagh-Patrick, and around Castle Bourke, in the county of Mayo. On Croagh-Patrick Mr. Lambert found it extending almost to the top of the mountain, which Mr. Kirwan and he ascertained to be 2666 feet above the level of the sea. It has also been found on the Pyrenees, but the flowers in the continental plant are of a deeper colour.

"Ray tells us in his History of Plants, that it is called St. Dabeoc's Heath (from whence the generic name), and that the Irish girls gird themselves with its long trailing branches as a protection to their chastity—With what success he unluckily has omitted to inform us." *D. Don.*

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1. Stamens and Pistil. 2. Stamens separate. 3. Pistil.
4. Sprig of the purple variety.

F. W. Smith del. et sc. Pub. by J. Ridgway 169 Piccadilly Mar 1 1825.

ALSTRŒMÈRIA Flos Martini.

St. Martin's Flower of Chile.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. AMARYLLIDEÆ. *Brown prodr.* 1. *p.* 296.
ALSTRŒMERIA. Suprà fol. 269.

A. *Flos Martini*, caule erecto, foliis linearibus tortuosis glabris, pedunculis subbifloris umbellatis, perianthii foliolis 3 exterioribus cuneato-obcordatis serratis.
Alstrœmeria Flos Martini. *Ker in bot. reg. t.* 731.
A. pulchella. *Sims in bot. mag. t.* 2421. non *Linn.*
A. tricolor. *Hooker exot. fl.* 1. *t.* 65.

Stem erect, round, glabrous, from a span to a foot high. *Leaves* scattered, linear, rather acute, glabrous, slightly rough at the edge, pruinosely glaucous on both sides, as well as the stem, the upper ones broader and almost lanceolate. *Flowers* varying from 2 to 8, umbellate. *Peduncles* compressed, forked, glabrous, furnished at the top with 6 sharp angles, the divisions occasionally dichotomous and two-flowered. *Perianthium* campanulate, bilabiate; 3 outer leaves cuneately obcordate, with a fleshy, green, concave point, purple outside, nerved and veiny, with narrow folded claws, upper surface and edges of a yellowish white, slightly stained with purple, the margins serrated near the top; lower one of the inner series shorter, cuneate, blunt, serrated, nearly white; 2 upper ones oblong-spathulate, narrower and longer, scarcely pointed, and almost entire, below of a pale pink, upper half with a bright yellow ground, stained with irregular dark red spots, and the apex almost entirely of the latter colour; the claws longer and tubular. *Stamens* 6,

unequal, declinate. *Filaments* awl-shaped, connivent at the base, pale pink. *Anthers* oblong, reddish-brown, with parallel connate cells. *Style* 3-sided, white. *Stigma* with 3 narrow, blunt, keeled, pale purple lobes. *Capsule* rounded-turbinate, with 6 elevated, sharp, almost winged angles.

Our drawing of this very pretty *Alstrœmeria* was taken at Mrs. Marryat's collection in the beginning of June last, from a plant which blossomed in the open border, in which situation it is found to flourish equally well with those retained in the greenhouse, and the flowers are usually of a brighter hue. A soil composed of equal parts of loam, sand, and vegetable mould or peat, will be found best adapted to it, and it may be increased, either by dividing the roots, or by seeds, which it affords freely. It comes near to *A. pelegrina*, but its narrower serrated sepals distinguish it from that species. By Ruiz and Pavon it appears to be included among the varieties of their *A. hæmantha*, and except the colour, broader sepals, and glabrous leaves, there is little else to separate them. In Chile it is called Flor de San Martin. The generic name will be found explained at fol. 269. *D. Don.*

BELLIUM crassifolium.

Thick-leaved Lesser Daisy.

Linnean Class and Order. SYNGENESIA POLYGAMIA SUPERFLUA.
Natural Order. COMPOSITÆ. *Adans. fam.* 2. *p.* 103.
Fam. VII. *ASTEREÆ Cass.* Trib. *BELLIDEÆ.*
BELLIUM. Suprà fol. 175.

B. *crassifolium*, caulescens; foliis spathulatis integerrimis, flosculis disci 5-dentatis, styli ramis cono papilloso terminatis, pappi paleis truncatis erosis.
Bellium crassifolium. *Moris in litt. Spreng. syst.* 4. *p.* 303.

Plant perennial, caulescent, somewhat suffruticose, sparingly clothed with adpressed pubescence. *Stems* decumbent, dull purple, cylindrical, about 3 inches long. *Leaves* thick and fleshy, spathulate, blunt, on narrow linear compressed footstalks, about an inch long. *Peduncles* erect, filiform, 5 inches long, dull purple, pubescent. *Involucrum* hemisphærical, of 16 linear-oblong, obtuse, equal pubescent, green leaves, gibbous at the base, and membranous at the edges. *Rachis* pyramidal, naked, minutely tuberculate. *Rays* about 18, female, oblong, somewhat pointed or notched, more rarely 3-toothed, spreading, milk white above, purple beneath. *Florets of the disk* tubular, 5-toothed and pentandrous, minutely papillose, yellow, pale green below. *Filaments* slender, glabrous, jointed at the apex. *Anthers* united into a tube, blunt and awnless at the base, terminated by a lanceolate, acute appendage. *Style*, the branches of in the rays linear, blunt, compressed, glabrous; of the disk thicker, and terminated by a conical, compressed, papillose appendage. *Achenia* cuneate, compressed, pubescent, marginate. *Pappus* of 6 or 8 broad, scariose, truncate paleæ, torn at the apex, alternating with an equal number of long scabrous bristles.

This pretty little Daisy is a native of Sardinia, where it was discovered by Signor Moris, Director of the Royal Botanic Garden at Turin, who gave it the very expressive name which it bears. It was introduced to our collections in 1832. The plant is well suited to ornament rockwork, being quite hardy, and fond of a dry situation. It is easily increased by cuttings and seeds.

Our drawing was taken at the Botanic Garden, Chelsea, in June last.

For the explanation of the generic name see fol. 175. *D. Don.*

1. Floret of the ray. 2. Floret of the disk.

NUTTÁLLIA PAPÀVER.

Poppy-like Nuttallia.

Linnean Class and Order. MONADELPHIA POLYANDRIA.
Natural Order. MALVACEÆ. *Juss. gen. p.* 271.
NUTTALLIA. *Calyx* basi nudus v. 3-bracteolatus. *Capsulæ* plurimæ, 1-spermæ, indehiscentes, in orbem dispositæ.
Herbæ (Amer. Boreal.) foliis *petiolatis pedatis*, floribus *solitariis longè pedunculatis lilacinis.*

N. *Papaver*, calycibus tribracteatis undique setoso-pilosis.
Nuttallia Papaver. *Graham in bot. mag. t.* 3287.

Root biennial, fusiform, white. *Stem* erect, branched, from a foot to 2 feet high. *Branches* filiform, sparingly furnished with adpressed bristly hairs. *Leaves*, the radical ones on footstalks of from 4 to 5 inches in length, 5-lobed, with cuneate-oblong, blunt, lobed, sometimes pinnatifid segments, furnished with a few scattered, adpressed, bristly hairs; those of the stem on shorter stalks, more deeply divided into 3 or 5 narrow, linear, acute, mostly entire segments. *Stipules* ovate, acute, fringed, leafy. *Flowers* solitary. *Peduncles* straight, filiform, from 3 to 6 inches long, clothed with adpressed bristly hairs. *Calyx* 5-cleft, copiously bristly, with ovate acuminate lobes, and furnished at the base with 3 linear, acute, spreading, bristly bractes of about 3 lines in length. *Petals* 5, broadly wedge-shaped, an inch long, somewhat connivent, the upper edge truncate, torn and crenated, of a rich lake, the claws short, white, and fringed at the border. *Stamens* very numerous. *Filaments* united into a column. *Anthers* yellow, reniform, unilocular, composed of 2 cup-shaped valves. *Stigmas* about 12, long, filiform, pale purple, spreading, bearded along their upper

surface. *Ovaria* about 12, 1-seeded, arranged closely in a circle, glabrous, notched exteriorly.

An exceedingly showy plant, and apparently quite hardy, thriving well in a soil composed of equal parts of peat and loam, and increased by seeds, which it, however, affords but sparingly. It does not seem to be more than biennial. It was discovered by Mr. Thomas Drummond near Covington in the state of Louisiana, and was introduced to our collection by seeds transmitted by that indefatigable collector in the spring of 1833.

We had the pleasure of seeing this plant, and that for the first time, in great beauty in the garden of our worthy friend Mr. Neill, at Canonmills, near Edinburgh, in the autumn of 1833.

Our drawing was taken from plants which flowered in Mr. Knight's collection, King's Road, Chelsea, in August last, and which had been received, we believe, from Mr. Neill.

The genus was named by Dr. William Barton, after its discoverer, Mr. Thomas Nuttall, who had previously denominated the plant *Callirhoe digitata*, a species which often occurs in gardens under a double name, and our learned friend Dr. Hooker, has been led to republish it as a second species. With regard to the specific distinction of the present species, there can be no question, but we could have wished that the name of so meritorious a Botanist, as Mr. Nuttall, had been applied to a less doubtful genus, for it will be seen that the presence of bractes at the base of the calyx, in this species, completely removes the limit between it and *Malva*, of which it cannot be regarded but as a section. *D. Don.*

GÍLIA achilleæfòlia.

Milfoil-leaved Gilia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. POLEMONIACEÆ. *D. Don in edinb. phil. journ.* 1822, *p.* 56.
GILIA. Suprà fol. 218.

G. *achilleæfolia*, foliis pinnato-partitis: segmentis lineari-angustissimis planis, floribus aggregatis pedunculatis, corollæ tubo calyce longiore: lobis obtusis, antheris cordato-oblongis mucronulatis.
Gilia achilleæfolia. *Bentham in bot. reg. fol.* 1622, *ad calcem. Lindl. ibid. t.* 1682.

Root fibrous, annual. *Stem* from 3 to 6 inches high, round, and like the rest of the plant furnished with short glandular hairs. *Leaves* alternate, bright green, pinnately parted, the segments narrow, linear, pointed, compressed. *Peduncles* varying in length, filiform, bearing from 3 to 5 flowers, placed on very short, copiously glandular pedicels. *Calyx* tubular, copiously glandular, with 5 ovate-lanceolate, acuminate, erect teeth, the sinuses scariose and purple. *Corolla* about twice the length of the calyx, funnel-shaped, of a nearly uniform deep blue colour, with broad, rounded, blunt, entire lobes, the throat widened, campanulate. *Stamens* 5, blue, inserted just below the sinuses, the free portion of the filaments awl-shaped. *Anthers* oblong-cordate, mucronulate. *Ovarium* bluntly 3-sided, 3-celled, the ovules many in each cell, angular. *Style* filiform, slender. *Stigmas* 3, semi-cylindrical, blunt, recurved, copiously papillose along their inner surface.

Another showy *Gilia* gathered by Mr. Douglas in California, and introduced from seeds sent by him to the Horticultural Society in 1833. It is akin to *G. capitata*, but the

flowers are less numerous, about three or four times the size, and of a deeper colour. It is a hardy annual, growing in almost any kind of soil, and perfecting its seeds freely in the open border.

Our drawing was taken from a specimen communicated by Messrs. Allen and Rogers, in July last, from their nursery at Battersea, whence we also received the white variety of *Dabœcia polifolia* given in our last number, a circumstance we omitted to notice in our account of it.

The generic name is explained at fol. 218. *D. Don.*

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1. Corolla laid open, shewing the insertion of the Stamens. 2. Pistil.

1
2

GLADIOLUS natalensis.

Natal Corn-Flag.

Linnean Class and Order. TRIANDRIA MONOGYNIA.
Natural Order. IRIDEÆ. *Brown prodr.* 1. *p.* 302.
GLADIOLUS. Suprà fol. 140.

G. *natalensis*, perianthii laciniis ellipticis abruptè mucronatis; 3 superioribus maximis in galeam conniventibus: fauce ventricosâ 6-sulcatâ, spathâ interiore biscuspidatâ tubo longiore.
Gladiolus natalensis. *Reinw. MSS.*
G. psittacinus. *Hooker in bot. mag. t.* 3032. *Lindl. in bot. reg. t.* 1442.

Stems straight, cylindrical, glaucous green, 3 feet or more in height, and about the thickness of one's finger. *Leaves* rather broad, ensiform, acuminate, erect, of a grass green, dark purple at the base, about two or three feet long, with four or five prominent pale ribs, and a white cartilaginous border. *Flowers* the largest of the genus, of a deep orange scarlet, mottled with yellow, about four inches long, disposed in a terminal spike. *Spathes* two, convolute, broadly lanceolate, pointed, pale green, striated, considerably longer than the tube, the inner one shorter, and cloven at the top. *Tube of the perianthium* of a pale green, angular, stained with purple, ventricose and furrowed above, with six broad elevated rounded ridges. *Faux* about the length of the tube. *Segments* three upper ones broadly elliptical, abruptly bristle-pointed, connivent in the form of a helmet, lower one of the same shape and colour, but smaller; inner pair four or five times smaller, paler, with a longer point. *Filaments* three, triquetrous, glabrous, pale yellow, curved. *Anthers* linear-

oblong, incumbent, yellow, emarginate, sagittate at the base. *Ovarium* turbinate, nearly round, with six shallow furrows. *Style* filiform, glabrous, furrowed. *Stigma* of three laterally compressed, recurved, blunt, papillose segments.

A native of the banks of Natal River, which falls into the Indian Ocean in about 29° 30′ south latitude, and which constitutes the northern boundary of a country (now forming part of the Cape Colony) of the same name on the South East Coast of Caffraria, and so called by the Portuguese navigators who discovered it on Christmas day in the year 1498.

For the introduction of this truly magnificent species we are indebted to Professor Reinwardt of Leyden, who has liberally distributed bulbs of it to various collections both in this country and on the continent. It is by far the largest in growth, and in the beauty of its flowers it is not surpassed by any others of the genus. The plant seems to be quite as hardy as the *G. byzantinus*, and requires the same soil and treatment as that species.

Our drawing was taken from a plant which flowered in the open border at Mr. Knight's Nursery, King's Road, Chelsea, in the beginning of August last. The tube of the perianthium secretes abundantly a honey-like fluid. The generic name is explained at fol. 176. *D. Don.*

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1. Portion of the Perianthium, with the Stamens. 2. Pistil.

2
1

DIÁNTHUS carthusianorum.

Carthusian Pink.

Linnean Class and Order. DECANDRIA DIGYNIA.
Natural Order. CARYOPHYLLEÆ. *Juss. gen. p.* 299.
DIANTHUS. Suprà fol. 231.

D. *carthusianorum*, glaucus; floribus aggregatis, petalis cuneatis serratis barbatis, bracteolis 4 cuneato-oblongis apice mucronatis, foliis linearibus trinerviis margine scabris.
Dianthus carthusianorum. *Linn. sp. pl. p.* 586. *hort. ups. p.* 105. *Smith in linn. trans.* 2. *p.* 299. *Pollich, pal. n.* 409. *Kniph. cent.* 7. *n.* 22. *Hoffm. germ. p.* 147. *Roth, germ. ed.* 2. *p.* 475. *Willd. sp. pl.* 2. *p.* 671. *Ait. hort. kew. ed.* 2. *v.* 3. *p.* 78. *Sims in bot. mag. t.* 2039. *Sibth. et Smith, fl. græc.* 4. *p.* 82. *t.* 392. *Decand. prodr.* 1. *p.* 356.
D. floribus aggregatis, squamis calycinis lanceolatis, corollis crenatis. *Guett. stamp. p.* 284.
Tunica Carthusianorum. *Scop. carn. n.* 504.
T. n. 899. *Hall. helv.* 1. *p.* 392.
Caryophyllus sylvestris vulgaris latifolius. *Bauh. pin. p.* 209. *Tourn. inst. p.* 333.
C. sylvestris. *Matth. valgr.* 1. *p.* 530. *Dalech. hist. p.* 807.
C. arvensis, calyculo florum numeroso. *Læsel. pruss. p.* 39. *t.* 7.
C. barbatus angustifolius. *Segu. veron.* 1. *p.* 438. *t.* 8.
Betonica sylvestris. *Fuchs. hist. p.* 352.
Dondernegelin. *Brunf. herb.* 2. *p.* 58.

Plant perennial, cespitose. *Stems* many, erect, cylindrical, smooth, about a foot high, with distant joints. *Leaves* linear, acute, recurved, channelled, glaucous, rough at the edges, with extremely minute teeth, from three to five inches long, traversed by three nerves. *Flowers* aggregate, from three to five, or more. *Bractes* cuneately oblong, scariose, adpressed, with a long, awl-shaped, erect, scabrous point; those of the calyx most frequently four, but sometimes six. *Calyx* cylindrical, tubular, furrowed, dark red, with ovate-oblong, acute, membranously bordered teeth. *Petals*, the claws

linear, white, shorter than the calyx; the lamina of a rich pink, cuneiform, sharply serrated, sparingly bearded with reclining hairs. *Stamens* 10, unequal. *Filaments* awl-shaped, glabrous, white. *Anthers* incumbent, violet, of two parallel cells. *Ovarium* cylindrical, surrounded at the base by a yellow fleshy ring. *Styles* two, filiform, white. *Stigmas* longitudinally papillose, with pale purple points.

A common continental species, especially in France and Italy, but never found with us in a wild state. We have seen it growing abundantly about Paris, along with the *Veronica spicata* and *Ajuga genevensis*. It has been noticed by Botanical writers as early as the *Dianthus barbatus*, but being much less showy than that species, it has not been prized as an ornamental plant, and it is consequently but rarely met with in cultivation, except in Botanic gardens. It continues to send forth a succession of flowering stems throughout the summer and autumn months, and when well grown it will be found to form a very pretty addition to the flower border. The specimens whence our drawing was taken, were communicated in June last, by our friend Mr. Malleson from Sundridge Park, Kent, the seat of Sir Samuel Scott, Bart. The plant had been raised there from seeds collected near Naples by the Hon. William T. H. Fox Strangways. It will be found to thrive best in a light sandy loam, and it may be increased by seeds and cuttings. As the flowers are small, we would recommend its being sown or planted in patches as it will then have a good effect.

For the meaning of the generic name see fol. 231. *D. Don.*

1. Organs of reproduction. 2. Pistil separate.

2
3
1

RHINOPÉTALUM Karelini.

Mr. Kareline's Rhinopetalum.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. LILIACEÆ. *Brown prodr.* 1. *p.* 295, *in notâ.*
RHINOPETALUM. Perianthium 6-phyllum, coloratum, deciduum, demùm recurvato-patens: *foliolis* basi foveâ nectariferâ nudâ auctis; *supremo* profundiùs foveolato posticèque cornuto! *Stamina* 6, subæqualia: *filamenta* conniventia, barbata: *antheræ* basi insertæ, erectæ. *Ovarium* 3-gonum, 3-loculare: *valvis* medio septiferis. *Ovula* plura, obovata, ventricosa, lævia, duplici ordine disposita. *Stylus* subfiliformis. *Stigma* indivisum, truncatum. *Capsula* . . . . . .

Planta (uralensis) *bulbosa, habitu* Fritillariæ, *bulbo e squamis crassis paucissimis composito.* Folia *lanceolata, subconvoluta.* Flos *terminalis, solitarius, pallidè lilacinus.*
Obs. Genus ab omnibus facilè distinguitur stigmate indiviso ovulisque subrotundis.
R. Karelini. *Fisch. MSS.*

Plant with the habit of *Fritillaria pyrenaica*, and like it of a glaucous hue. *Bulb* orbicular, depressed, composed of two or three broad, thick, fleshy scales. *Stem* erect, simple, flexuose, cylindrical, slightly purplish, clothed with minute, papillose pubescence, three inches high, and about the thickness of packthread. *Leaves* alternate, stem-clasping, lanceolate, acute, concave above, convex and obscurely nerved below, the edges rather convolute, fleshy, glaucous, slightly waved and twisted, copiously and minutely pubescent on both sides, but especially beneath, an inch and a half long; uppermost almost linear and more pointed; the primordial ones broad, lanceolate, straight, stalked, and attenuated at the base. *Flower* terminal, solitary, drooping, about double the size of those of *Gagea lutea*. *Perianthium* hexapetaloid. *Sepals* equal, linear-oblong, blunt, at first connivent, afterwards spreading, with recurved points, pale pink, marked with rounded deeper coloured dots, the base callous, and furnished with a broad, yellow, nectariferous pit, spotted with brown, the uppermost one broadest, and furnished at the base with a deeper pit, which projects behind into a short, thick, blunt, helmet-shaped

spur, directed forwards. *Stamens* 6, nearly equal, and about as long as the perianthium. *Filaments* awl-shaped, white, connivent at the base, copiously clothed with short papillose hairs. *Anthers* olive-green, thickly dotted with brown-purple, cordate-oblong, erect, inserted by the emarginate base, 2-celled, the cells parallel, opening lengthways and interiorly, the connectivum terminating in a short, blunt point. *Pistil* rather shorter than the stamens. *Ovarium* 3-celled, 3-sided, with the valves septiferous at the centre. *Ovula* many in each cell, and arranged in a double series, obovate, ventricose, smooth. *Style* filiform, purple, slightly attenuated towards the top, longer than the ovarium. *Stigma* an abrupt, papillose dot.

This curious plant, constituting one of the most remarkable genera of the whole family to which it belongs, was discovered by M. Karéline in the steppes or deserts of the Indersky Sea, on the southern part of the Ural, and communicated by him to Dr. Fischer of the Imperial Botanic Garden at St. Petersburg, whence bulbs were transmitted to our worthy friend Mr. Anderson of the Chelsea Botanic Garden, where the plant flowered in January last. From its locality, it will no doubt prove perfectly hardy in our climate, but being still extremely rare, Mr. Anderson has hitherto very judiciously kept it in a pit along with other more tender bulbous rooted plants. In habit it is not unlike small specimens of *Fritillaria pyrenaica*, and its bulbs exactly resemble those of that plant. A soil composed of equal parts of sandy peat and loam appears to be well suited for it.

The genus possesses the nectariferous pits found at the base of the sepals in *Fritillaria*, *Calochortus* and *Cyclabothra*, but the almost filiform style, perfectly undivided stigma, and rounded ovula, essentially distinguish it from those, as well as from every other genus of the family, and would seem to point out a close relationship between the *Liliaceæ* proper and *Asphodeleæ*.

The generic name refers to the spur-like process at the base of the upper sepal, and is compounded of ῥὶν ῥινος a nose, and πεταλον a petal. *D. Don.*

1. Stamen. 2. Pistil. 3. Section of the Ovarium.

1
2

RHODODÉNDRON índicum; *var.* speciòsum.

Showy Indian Rosebay.

Linnean Class and Order. DECANDRIA MONOGYNIA.
Natural Order. ERICACEÆ. *Trib.* 2. RHODOREÆ. *Don in edinb. phil. journ. July*, 1834. *p.* 152.
RHODODENDRON. Suprà fol. 10.

Sect. 6. *Calycis limbo foliaceo 5-partito, corollâ campanulatâ, staminibus 5-10, ovario 5-loculari, foliis membranaceis sempervirentibus hispidè pilosis.* Sp. Chinenses.

R. *indicum*, decandrum; foliis obovato-oblongis planis ramulisque adpressè setosis, floribus subsolitariis, segmentis calycinis lanceolatis acutis strigosis, corollæ limbo tubo duplò longiore.

Rhododendron indicum. *D. Don in edinb. phil. journ.* 1821. *G. Don gen. syst. gard. & bot.* 3. *p.* 845.

Azalea indica. *Linn. sp. pl. p.* 214. *Thunb. jap. p.* 84. *Willd. sp. pl.* 1. *p.* 831. *Ait. hort. kew. ed.* 2 *v.* 1. *p.* 318. *Sims in bot. mag. t.* 1480. *Lodd. bot. cab. t.* 275.

Chamærhododendron exoticum, amplissimis floribus liliaceis. *Breyn. prodr.* 1. *p.* 23. *ed. alt. p.* 16.

Cistus indicus, Lædi alpini foliis et floribus amplis. *Herm. lugdb. p.* 152. *t.* 153. *Raii hist. p.* 1895.

Tsutsusi. *Kæmpf. amæn. p.* 845. *t.* 846.

ε. *speciosum*, foliis lanceolatis mucronulatis, floribus purpureis majoribus.

Stem arboreous, from four to six feet high. *Branches* ascending, leafy, thickly clothed with brown adpressed bristles. *Leaves* lanceolate, mucronulate, veiny, light green, attenuated at the base, the edges slightly recurved, and as well as the ribs and veins furnished with brown adpressed bristly hairs, two or three inches long, and half an inch to an inch in breadth. *Footstalks* scarcely half an inch long, semicylindrical, bristly. *Flowers* terminal, mostly in pairs. *Peduncles* about half an inch long, cylindrical, bristly. *Calyx*

5-partite, the segments leafy, membranous, lanceolate, acuminate, bristly, as long as the peduncles. *Corolla* large, campanulate, purple; limb about three inches across, spreading, deeply 5-lobed, with broadly elliptical, blunt, even segments, the three upper ones rather larger, and marked with deeper coloured spots. *Stamens* ten, unequal, declinate, about as long as the corolla. *Filaments* slender, capillary, purple, the lower half copiously papillose. *Anthers* nearly black, very short, opening at the top by two pores. *Ovarium* 5-celled, copiously clothed with silvery bristles. *Style* slender, glabrous, purple, longer than the stamens. *Stigma* blunt.

This splendid variety was raised at Coombe Wood, the seat of the late Earl of Liverpool, by Mr. William Smith, who has now transferred his choice collection of Roses and Rhododendrons to Norbiton Common, near Kingston, Surrey, where he cultivates an ample store of novelties for sale. It was raised in 1830 from seeds obtained from *R. indicum*, that had been impregnated with the pollen of *phœniceum*. It is nearly hardy, and a very free flowerer, beginning to blossom about the first of May.

It much resembles the variety figured at TAB. 154, but the flowers are larger and decandrous, and the plant is altogether more showy.

Figures 1 and 2 in our plate, represent the flowers of two other varieties raised from the same seed, one of them frequently becoming semi-double.

For the meaning of the generic name see fol. 10. *D. Don.*

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RHODODÉNDRON venústum.

Lovely Rosebay.

Linnean Class and Order. DECANDRIA MONOGYNIA.
Natural Order. ERICACEÆ. *Trib.* 2. RHODOREÆ. *Don in edinb. phil. journ. July*, 1834. *p.* 152.
RHODODENDRON. Suprà fol. 10.

Sect. 2. *Calycis limbo abbreviato 5-lobo, corollâ campanulatâ, staminibus* 10, *capsulis* 8-10-*locularibus, foliis coriaceis sempervirentibus.* Sp. indicæ.

R. *venustum*, foliis sempervirentibus elliptico-oblongis subtùs ferrugineis, corollâ campanulatâ: lobis emarginatis crispatis, ovariis 8-locularibus tomentosis.

A very dwarf and bushy evergreen shrub, not exceeding 8 inches in height. *Branches* round, glabrous, dark red, leafy. *Leaves* 4 or 5 inches in length, by 2 in breadth, oblong-elliptical, rather pointed, coriaceous, dull green, and veiny above, rusty brown beneath, with a stout red midrib, the edges slightly recurved. *Footstalks* scarcely half an inch long, stout, rounded, dark red, marked above by a shallow furrow. *Flowers* about 15, in a compact cluster. *Peduncles* cylindrical, an inch long, pale red, silky. *Calyx* silky and fringed, 5-lobed, the lobes short, rounded, membranous. *Corolla* campanulate, 5-lobed, of a rich pink, marked inside all round with dark red spots; lobes oblong, notched, wavy, and crumpled at the edges, which are also of a much paler colour, being nearly white. *Stamens* 10, declinate, shorter than the corolla. *Filaments* awl-shaped, white, copiously hairy at the base. *Anthers* yellow, apparently quite perfect, opening at the top by two pores. *Ovarium* copiously downy, 8-celled. *Style* filiform, declinate, longer than the stamens, thickened at the top. *Stigma* projecting beyond the corolla, rounded convex, viscid.

An exceedingly showy and interesting plant, raised by Mr. William Smith in 1829, from seeds of *Rhododendron caucasicum* that had been fertilized by *arboreum*. It partakes of the female parent in habit and stature, but agrees with *arboreum* in the more essential parts of its structure, particularly in its downy, many-celled ovarium, and this we find to be the case in all the hybrids of this genus which we have examined, they partake of the habit and constitution of the female parent, but agree with the male in the more essential parts of structure, and they are mostly reducible to the same species with the male parent. All the hybrids of *arboreum* suffer a reduction of two in the number of cells to the ovarium.

Our drawing was taken in the early part of March, at Mr. Smith's Nursery, Norbiton Common, near Kingston, Surrey. The plant was not more than eight inches high, and had two large clusters of fifteen flowers each, of a rich pink, marked inside with dark red spots. It is quite hardy, and is easily increased by layers. Mr. Smith is already in possession of a good stock of young plants of it. The generic name will be found explained at fol. 10. *D. Don.*

1 May 1835

NARCISSUS maximus.

Great Daffodil.

Linnean Class and Order. HEXANDRIA MONOGYNIA.
Natural Order. AMARYLLIDEÆ. *Brown prodr.* 1. *p.* 296.
NARCISSUS. *Perianthium* infundibuliforme: *limbo* 6-partito, patente: *coronâ* campanulatâ, plerumque integrâ. *Stamina* tubo inserta. *Stigma* trilobum. *Capsula* 3-locularis, 3-valvis, polysperma.
Plantæ *bulbosæ, plerumque europæ.* Spatha *monophylla, latere dehiscens,* 1-*multiflora.* Flores *flavi v. albi.* Semina *subrotunda, bi v. trifaria, lævia, basi exteriore liberâ fungoso-callosâ.*

** *Coronâ faucis tubulosâ sæpiùs laciniarum longitudine, staminibus extra tubum exsertis subæqualibus conniventibus, spathâ uniflorâ.* Ajax.
N. *maximus,* perianthii laciniis ovatis patentibus tubo duplò longioribus, coronâ infundibuliformi laciniarum longitudine: limbo patenti 6-lobo inciso-crenato, foliis planis.
Ajax maximus. *Haworth monogr. p.* 3.
A. propinquus, *a.* *Ejusd. revis. narciss. p.* 116.
Narcissus totus luteus, calice prælongo. *Rudb. elys. t.* 71. *f.* 9. (*bona.*)

Scapes erect, round, solid, deeply fluted, from a span to a foot high. *Leaves* about the length of the scape, broadly linear, blunt, plain and even, glaucous green. *Spathes* monophyllous, scariosely membranous, pale brown, split laterally, one-flowered. *Perianthium* funnel-shaped, of a deep yellow; tube turbinate, very short, greenish yellow; limb deeply 6-parted, with ovate, pointed, spreading, slightly twisted segments; crown dilated, funnel-shaped, rather longer than the segments, the limb spreading, 6-lobed, lobes round, overlapping each other at the base, deeply and unequally crenated, and waved. *Stamens* 6, equal, connivent, shorter than the crown. *Ovarium* turbinate, deeply furrowed. *Style* longer than the stamens. *Stigma* with 3, rounded, papillose, spreading lobes.

Nearly related to *N. propinquus*, but differing in the greater size of all its parts, broader leaves, wider spreading, and deeper lobed crown.

Our drawing was taken from a bulb which flowered in Mr. Haworth's collection in April 1831. It appears to be an uncommon species, for we have in vain looked for it in other collections around the metropolis. The figure in the rare *Campi Elysii* of Rudbeck is a tolerably faithful representation of our plant. Mr. Haworth has attempted to separate *Narcissus* into several genera, but, although his divisions are for the most part strictly natural, they cannot be regarded in any other light than as sections of a very natural genus, as they rest entirely on differences of degree, and not on those of actual structure, a consideration that ought to be borne in mind in the construction of new genera and in the dismemberment of old.

With regard to the claims of the present to the rank of a species, we place an entire reliance on the opinions of our late lamented friends, Mr. Haworth and Mr. Sweet, who had bestowed great attention to the study of this genus, and whose practical knowledge in this and other difficult tribes of plants was rarely, if ever, equalled.

For the explanation of the generic name, see fol. 92.—*D. Don.*

1. Stamens. 2. Pistil.

Pub. by J. Ridgway, 69 Piccadilly, 1 May 1833. J. W. Smith sc.

ABÙTILON pulchéllum.

Fragrant Abutilon.

Linnean Class and Order. MONADELPHIA POLYANDRIA.
Natural Order. MALVACEÆ. *Juss. gen. p.* 271.
ABUTILON. Calyx ebracteatus, 5-fidus. *Styli* apice soluti. *Carpella* 5—30, polysperma, sæpè vesicaria.
Plantæ *plerumque fruticosæ, foliis petiolatis indivisis, floribus terminalibus axillaribusve.*

• *Carpellis* 5—8.
A. *pulchellum*, stellato-pubescens, fruticosum; foliis ovato-lanceolatis cordatis grossè crenatis, racemis axillaribus, stylis solutis, carpellis 5 dispermis.
Abutilon pulchellum. *G. Don gen. syst. gard. & bot.* 1. *p.* 501.
Sida pulchella. *Bonpl. nav. t.* 2. (*bona.*) *Willd. enum. p.* 724. *Decand. prodr.* 1. *p.* 468. *Hooker in bot. mag. t.* 2753.

An upright, branching shrub, rising to the height of 6 or 8 feet, covered with a dark olive-coloured bark. *Branches* round, twiggy, tough and flexible; the younger ones and leaves sparingly clothed with starry pubescence. *Leaves* stalked, deciduous, cordate-oblong, rather attenuated towards the apex, but not pointed, the border cut with broad, rounded, rather unequal crenatures, dark green and shining above, paler and veiny beneath, about an inch and a half long; the posterior lobes rounded and rather connivent. *Footstalks* about an inch long, semicylindrical, equal. *Stipules* small, lanceolate, acute, persistent. *Racemes* axillary, solitary, erect, shorter than the leaves. *Flowers* from 10 to 15, very small, white, fragrant like those of the hawthorn. *Pedicels* very short, cylindrical, glabrous, thickened at the top, and furnished at the base with a small, ovate, pointed, membranous, caducous bracte. *Calyx* campanulate, membranous, naked, with 5 ovate pointed teeth. *Petals* 5, oblong, blunt,

exceeding the calyx, bearded at the base. *Stamens* about 15. *Filaments* connate, white, forked at the top. *Anthers* yellow, unilocular, with two prominent valves. *Styles* 5, free. *Stigmas* spathulate, minutely papillose. *Carpels* 5, concrete, hairy, 2 or 3-seeded, opening by two mucronulate valves.

We have carefully compared our plant with the figure and description given by Bonpland, and there cannot, we think, be doubt as to their identity. The valves of the carpels being pointed when open, have doubtless led M. Bonpland to describe them as awned. The plant is a native of New South Wales, and it appears to have been first discovered by the late Mr. George Caley. Our friend Mr. Allan Cunningham, to whom we are indebted for some valuable notes on the subject, found it on the banks of Cox's River, in the Blue Mountains. According to Mr. Cunningham the bed of that river is 2172 feet above the level of the sea, and as the thermometer falls there in winter below the freezing point, and as snow is seen to rest on the hills around, the hardy nature of the plant is easily accounted for. It appears to have been introduced to the gardens so early as 1810.

Our drawing was taken in the Spring of last year at the Chelsea Botanic Garden, where the plant has stood trained to a wall for several years without protection, growing vigorously, and flowering and perfecting its seeds freely. Its flowers, although small, are produced in great abundance, and diffuse an agreeable fragrance like that of the hawthorn.

The name *Abutilon* was applied by the Arabian physicians to a plant analogous to the Marsh Mallow, and has been adopted by modern writers for a genus of the same family. *D. Don.*

1. Calyx. 2. Petals. 3. Organs of reproduction. 4. Stamens separate. 5. Calyx with the ovarium. 6. Pistil. 7. Carpels.

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MUTÌSIA latifòlia.

Broad-leaved Mutisia.

Linnean Class and Order. SYNGENESIA POLYGAMIA SUPERFLUA.
Natural Order. COMPOSITÆ. Fam. II. LABIATIFLORÆ. *Don in linn. trans.* 16. *p.* 184. Trib. 3. MUTISIEÆ.
MUTISIA. Involucrum polyphyllum, imbricatum. *Rhachis* nuda. *Flosculi radii* ligulati, fœminei; *disci* hermaphroditi, bilabiati. *Filamenta* papillosa. *Antheræ* basi bisetosæ. *Stylus* glaber. *Achenia* subrostrata. *Pappus* pluriserialis, plumosus.
Frutices (Amer. austr.) *sæpè scandentes.* Folia *alterna, apice plerumque cirrhosa.* Capitula *solitaria, magna, speciosa, radiata.* Corolla *purpurea v. lutea.*

M. *latifolia,* caule alato, foliis cordato-oblongis dentato-spinosis subtùs lanatis, involucri squamis appendiculatis, pappi radiis æqualibus truncatis.
Mutisia latifolia. *Don in l. c.* 16. *p.* 270.

Stems shrubby, scandent, winged, extending often to a considerable distance, the wings 3, broad, leafy, copiously armed with spinous teeth. *Leaves* cordate-oblong, rounded and emarginate, or often truncate, coriaceous, waved, and copiously furnished at the margin with spinous teeth, occasionally altogether entire, thickly clothed in the young state on both sides with intricate woolly hairs, the upper surface finally becoming glabrous, and of a light green, with the veins less conspicuous than in *ilicifolia,* the midrib broader at the base, and extending at the apex into a blunt, compressed, spirally convolute tendril, of 3 inches in length. *Capitula* solitary, nearly sessile. *Involucrum* large, cylindrical, about an inch long, woolly, imbricate, with oblong scales, the outer ones terminated by an ovate-lanceolate, sharp-pointed, leafy, spreading appendage; the innermost ones in a single series, with a broad, rounded, membranous, coloured apex, but destitute of an appendage. *Rhachis* naked. *Florets* those of the ray about 14, female, ligulate, bluntly 3-toothed, many-nerved, of a pale pink, furnished with 5 sterile stamens, and an inner labellum, composed of 2, very short, linear, erect segments; those of the disk about 30, hermaphrodite, purple, tubular, and bilabiate, the lips revolute, outer one ligulate, bluntly 3-toothed, inner one deeply parted into 2, linear, blunt, 2-nerved segments. *Stamens* 5, inserted into the tube. *Filaments* compressed, pubescent, jointed at the apex. *Anthers* yellow, exserted, united into a tube, crowned by a ligulate, blunt, coriaceous appendage, and furnished at the base with 2, compressed, channelled, branched, and often forked bristles. *Style* glabrous, with 5 angles, thickened at the base, the branches very short, blunt, and minutely papillose. *Achenia*

compressed, glabrous, slightly quadrangular, narrowed towards the top, the disk broad and flattened. *Pappus* of a grey colour, deciduous, the rays copious, arranged in a double series, feathery, equal, truncate at the apex, dilated at the base.

Flowering specimens of this curious and interesting plant were communicated in October last by the Rev. Townshend Selwyn, from his collection at Kilmington Rectory, Wilts, and we are indebted to his amiable and accomplished daughter, Miss Selwyn, for the beautiful drawing represented in our plate. It is a native of Valparaiso, in Chile, and is common on the hills about that town, climbing among bushes. We have native specimens gathered there by Messieurs Cuming and Bridges. It was introduced in 1832 from seeds collected by the former, and the plant is now not unfrequent in botanical collections, but our friend, Mr. Selwyn, is the only one who has yet succeeded in flowering it. The plant has been hitherto kept in the greenhouse, but from what we have ourselves remarked, we have no doubt of its succeeding well in the open border, planted by a trellis, or near to any tree that is trained to a wall, where it may have an opportunity of extending itself. Mr. Bridges describes the rays as pink, but in the cultivated plant they were nearly white, a circumstance perhaps owing to its flowering so late in the season, and therefore deprived of the requisite light and sunshine to develope the colouring matter.

The species comes near to *ilicifolia* of Cavanilles, the *spinosa* of Ruiz and Pavon, but is well distinguished by the presence of leafy appendages to the scales of the involucrum, and by the equal truncate rays of the pappus. The leaves are also usually broader, more downy, and less conspicuously veined, and the stem and branches constantly winged.

The *Labiatifloræ* constitute after *Cichoraceæ* the most natural and well-defined group among the *Compositæ*. We prefer that name to those of *Mutisiaceæ* and *Nassauviaceæ* adopted by Cassini and Lessing, because it conveys at once to the mind the most striking characteristic of the family, and as *Mutisia* and *Nassauvia* cannot be regarded as typical genera, and still less can we agree to their separation into two distinct families. We had formerly proposed to remove *Chætanthera* and some nearly related genera from the *Mutisieæ*, but we are now satisfied that they form but one tribe, and that the *Diazeuxeæ* ought to be united to *Perdicieæ*.

The genus was named by Linnæus after his learned friend and correspondent Don Jose Celestino Mutis, chief of the botanical expedition to New Granada, many of whose interesting discoveries, and among others a species of the present genus, are recorded in the *Supplementum Plantarum* of the younger Linnæus. *D. Don.*

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GÍLIA coronopifòlia.

Bucks-horn-leaved Gilia.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. POLEMONIACEÆ. *D. Don in edinb. phil. journ.* 1822. *p.* 56.
GILIA. Suprà fol. 218.

G. *coronopifolia,* foliis pinnatisectis: segmentis linearibus mucronatis, floribus paniculatis, corollæ tubo calyce 5-plò longiori: laciniis ovatis acutis planis.
Gilia coronopifolia. *Persoon synops.* 1. *p.* 187. *Lindl. in bot. reg. t.* 1691.
Ipomopsis elegans. *Mich. amer.* 1. *p.* 141. *Smith exot. bot.* 1. *p.* 23. *t.* 13. *Aiton hort. kew. ed.* 2. *v.* 1. *p.* 342.
Cantua coronopifolia. *Willd. sp. pl.* 2. *p.* 879. *Andr. bot. rep. t.* 415. *Pursh. fl. amer.* 1. *p.* 147. *Elliott fl. carol.* 1. *p.* 260.
Polemonium rubrum. *Linn. sp. pl.* 1. *p.* 231.
Ipomœa rubra. *Ejusd. syst. veg. p.* 171.
Quamoclit pennatum erectum, floribus in thyrsum digestis. *Dill. elth.* 2. *p.* 321. *t.* 241. *f.* 312. (*bona.*)

Root fibrous, annual. *Stem* erect, cylindrical, branched, 4 or 5 feet high, copiously clothed, like the rest of the plant, with glandular pubescence. *Leaves* alternate, stalked, deeply pinnatifid, almost pinnate, with narrow, linear, mucronate, entire, distant, channelled segments; the terminal one larger; those towards the upper part of the stem and bractes linear, mucronate, undivided, an inch or an inch and a half long. *Flowers* copious, paniculate, less crowded than in *G. aggregata.* *Calyx* campanulate, membranous, the interstices scariose, with awl-shaped, spinously pointed, erect segments, exceeding the tube in length. *Corolla* funnel-shaped, copiously glandular outside, scarlet, the tube 4 or 5 times longer than the calyx; limb spreading with 5 ovate, flat, abruptly pointed segments, marked above with small irregular white spots. *Filaments* slender, capillary, glabrous, red, adherent to the tube of the corolla nearly as far as the sinus. *Anthers* incumbent, yellow, composed

of 2 parallel connate cells. *Ovarium* 3-sided, 3-celled. *Style* slender, filiform, longer than the corolla. *Stigmas* 3, semi-cylindrical, recurved, minutely papillose above. *Capsule* 3-celled, 3-valved, shorter than the calyx. *Seeds* angular, several in each cell.

Few annual plants are seen in our gardens of equal beauty to the present, which is a native of the upper districts of Carolina and Georgia, on the banks of rivers, in sandy soil, where it was first found by Catesby, and plants of it were raised in Sherard's famous garden at Eltham about 1725, from seeds brought by that zealous collector. The plant has been introduced several times since, but from its having rarely perfected its seeds, it has seldom been preserved beyond the first year.

Linnæus first referred the plant to *Polemonium*, but he afterwards less happily removed it to *Ipomœa*, having been most probably influenced in this opinion by Dillenius, who regarded it as belonging to that genus. Michaux, or rather the elder Richard, separated it as a distinct genus under the name of *Ipomopsis*, but it has since very properly been united to *Gilia*, a genus previously published by Ruiz and Pavon.

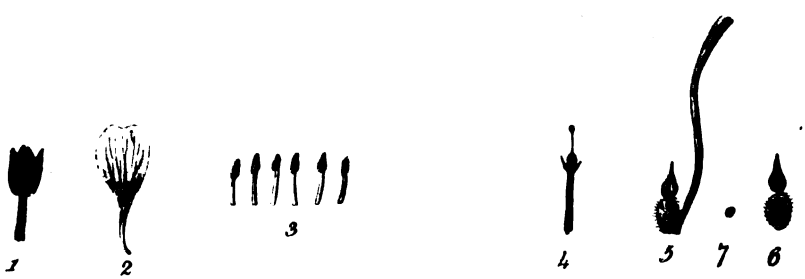
It is very nearly related to *G. aggregata*, given at TAB. 218. of the present volume, but differs in its looser inflorescence, and in the broader, spreading, and less pointed segments of its corolla.

We would recommend the seeds to be sown in the autumn, and the young plants to be preserved in the pit or greenhouse through the winter, and to be planted out about the middle of May, in a shady border, and in a sandy soil. Treated in this way the plants will come early into flower, and will be more likely to ripen their seeds.

Our drawing was taken in August last at Park Lodge, Blackheath, the seat of Lord Auckland, where the plant was more than usually vigorous, having attained the height of 6 or 7 feet.

For an explanation of the generic name, see fol. 218.
D. Don.

1. Radical leaf. 2. Portion of the tube of the corolla shewing the insertion of the stamens. 3. Ovarium.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MORÍSIA hypogæa.

Ground Cress.

Linnean Class and Order. TETRADYNAMIA SILIQUOSA.
Natural Order. CRUCIFERÆ. *Juss. gen. p.* 237.
MORISIA. Siliqua lomentacea, biarticulata: *articulis* crustaceis, globosis, corrugato-sulcatis, bilocularibus; *superiore* breviter rostrato, loculis 1-spermis; *inferiore* majore, loculis 3-spermis. *Cotyledones* planæ! incumbentes.
Herba (Sardoa) *cæspitosa, radice perenni.* Folia *runcinata.* Scapi *uniflori.* Flores *lutei.*
Obs. Genus Erucariæ tam habitu quàm characteribus simillimum, sed longè differt cotyledonibus planis rectis nec replicatis. *D. Don Mss.*

M. hypogæa. *Hort. Taurin.*

Plant apparently perennial, forming a little compact tuft. *Root* long, fusiform. *Scapes* many, single-flowered, cylindrical, glabrous, about as long as the leaves, slightly attenuated at the top. *Leaves* runcinate, glabrous, of a bright green, polished, about 2 inches long, on a short footstalk; segments ovate-oblong, entire, or occasionally furnished at the lower edge with a single tooth, and mostly terminated by a short diaphanous bristle; the terminal one larger, ovate, 3-lobed, somewhat diamond-shaped. *Footstalks* and *rhachis* fringed with spreading bristly hairs. *Calyx* slightly pubescent, with oval, blunt, connivent sepals. *Petals* wedge-shaped, bright yellow, entire, double the length of the calyx. *Stamens* 6; 4 longer. *Filaments* simple, slightly compressed, glabrous. *Anthers* oblong, of two parallel cells. *Ovarium* ovate, furnished at the base with two awlshaped glands. *Style* longer than the ovarium, cylindrical, stout. *Stigma* capitate, papillose. *Pod* short, biarticulate, both joints bilocular, crustaceous, globose, wrinkled, upper articulation surmounted by the persistent style, lower one larger, bristly; cells of the lower articulation

three-seeded, of the upper one-seeded. *Seeds* rounded oval, brown, suspended by a flat, white, umbilical chord, with a thin cartilaginous testa. *Embryo* white. *Cotyledons* oval, even, incumbent. *Radicle* dorsal, compressed, obtuse, rather shorter than the cotyledons.

Introduced by Mrs. Palliser from the Valentino (the Royal Botanic Garden at Turin), from seeds presented to her by Professor Moris, who discovered the plant on the mountains of Sardinia. It is perennial and quite hardy, and appears well suited for rockwork, where its numerous bright yellow blossoms contrasted with its deep green polished leaves would doubtless produce a good effect. It requires a light loamy soil, and is readily increased by seeds which should be sown immediately they are ripe. It derives its specific name from its capsules burying themselves in the ground like some of the *Violeæ*.

Our drawing was taken from Mrs. Marryat's collection in April 1834. Having missed the opportunity of seeing the ripe fruit in the living plant, Mr. Bentham very obligingly allowed us to examine the native specimens contained in his Herbarium. The plant in habit and structure comes very near to *Erucaria*, except in having even, not folded Cotyledons, a remarkable character, which removes it entirely from that group, and we know of no other with which it can be associated. The genus was dedicated to its discoverer, Professor Moris, but by whom instituted we are at present unacquainted. *D. Don.*

1. Calyx. 2. Petal. 3. Stamens. 4. Pistil.
5. Capsule with the peduncle. 6. Longitudinal section of the same.
7. Seed.

J. Hart del. Sub tr. Indent. [illegible] Piccadilly Jun. 1. 1835. F. W. Smith sc.

RHODODÉNDRON nudiflórum;

var. exímium.

Choice Rosebay.

Linnean Class and Order. DECANDRIA MONOGYNIA.
Natural Order. ERICACEÆ. Trib. 2. RHODOREÆ. *Don in edinb. phil. journ. July*, 1834. *p.* 152.
RHODODENDRON. Suprà fol. 10.

Sect. 7. *Calycis limbo abbreviato 5-lobo, corollâ infundibuliformi, staminibus 5, capsulis 5-locularibus, foliis membranaceis deciduis.* Pentanthera.

R. *nudiflorum*, pentandrum; foliis lanceolatis acutis membranaceis ciliatis, corollâ infundibuliformi pilosâ, laciniis calycinis brevissimis rotundatis ciliatis, staminibus corollâ duplò longioribus, ovariis pilosis.

Rhododendron nudiflorum. *Torr. fl. un. st.* 1. *p.* 140. *G. Don. gen. syst. gard. & bot.* 3. *p.* 847.

Azalea nudiflora. *Linn. sp. pl. p.* 214. *Curt. bot. mag. t.* 180. *Pursh fl. amer.* 1. *p.* 152. *Ait. hort. kew.* 1. *p.* 319.

μ. eximium, floribus decandris, laciniis calycinis ovato-lanceolatis, corollis puniceis: lobis obtusis undulatis; superiore disco maculato, foliis sempervirentibus.

A bushy, erect, evergreen shrub. *Branches* clothed with rough pubescence. *Leaves* lanceolate, acute, membranous, light green, veiny, and glabrous above, pubescent beneath, attenuated at the base, with a prominent midrib, an inch and a half to two inches long, half an inch or more in breadth, the edges slightly recurved. *Footstalks* 3 lines long, semicylindrical, pubescent, green. *Clusters* of from 10 to 12 flowers, corymbose. *Péduncles* short, stout, cylindrical, clothed with glandular pubescence. *Calyx* glandular, with 5, ovate-lanceolate, obtuse, rather leafy segments. *Corolla* about an inch and a half long, crimson, funnel-shaped, finely pubescent, with 5, elliptical, rounded,

slightly waved lobes, each furnished with a line of white hairs down the centre; upper one broader, and marked with deeper coloured spots. *Stamens* 10, declinate, projecting considerably beyond the corolla. *Filaments* slender, filiform, pale pink, white below. *Anthers* short, incumbent, orange brown, opening at the top by two orbicular foramina. *Ovarium* oblong, copiously pubescent, 5-celled. *Style* filiform, glabrous, pale red, longer than the stamens. *Stigma* large, capitate, viscid.

This is another of those splendid productions raised by Mr. William Smith, whose success in this department of horticulture stands unrivalled. It was raised by him in 1829, from seeds of the variety *coccinea major* of *Rhododendron nudiflorum* that had been fertilized by *arboreum*, and except in its evergreen leaves, and decandrous flowers, it agrees almost entirely with the former species, having less affinity with *arboreum* than any of the other hybrids from that species, which we have seen. The plant appears to be quite hardy, is readily multiplied by layers, and from the beauty of its flowers is well deserving of a place in every garden.

Our drawing was taken from specimens communicated by Mr. Smith from his collection at Norbiton Common, near Kingston, in the early part of last month.

In the preceding number of this work we have figured and described another beautiful mule *Rhododendron*, raised also by Mr. Smith, but in the text we inadvertently omitted to mark it as a variety, and we have therefore to request our readers to alter the name to *R. arboreum var. venustum*, it being far from our intention to attempt to elevate these garden productions to the rank of species.

The generic name will be found explained at fol. 10. *D. Don.*

1. Pistil with the calyx. 2. Ovarium transversely cut.

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ANTHYLLIS Webbiana.

Rose-coloured Kidney-Vetch.

Linnean Class and Order. DIADELPHIA DECANDRIA.
Natural Order. LEGUMINOSÆ. *Juss. gen. p.* 345.
ANTHYLLIS. *Calyx* tubulosus 5-dentatus post anthesin persistens, plùs minùsve vesicarius inflatus. *Corollæ* alæ et carina vexillo subæquales. *Stamina* omnia connexa. *Legumen* ovatum 1-2-spermum, rariùs oblongo-lineare polyspermum semper calyce induriato tectum.
Herbæ *aut* Frutices *habitu vario.* Decand. prodr. 2. p. 168.

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* *Capitulis bracteatis, calycibus defloratis inflatis, leguminibus* 1-2-*spermis calyce inclusis, foliis impari-pinnatis.* Vulneraria.
A. *Webbiana;* herbacea, sericeo-argentea; foliolis ellipticis acutis subæqualibus, bracteis palmatis.
Anthyllis Webbiana. *Hooker in bot. mag. t.* 3284.

Plant perennial, cespitose, densely clothed with adpressed silky hairs. *Stems* many, prostrate, filiform, branched, a span long. *Leaves* impari-pinnate. *Leaflets* elliptical-oblong, pointed, rather fleshy, copiously silky, on a short, partial stalk, mostly opposite; the terminal one rather larger. *Racemes* capitate, nearly sessile. *Heads* round, many-flowered. *Bractes* palmate, with ovate mucronulate lobes. *Calyx* inflated, thin, membranous, white, densely hairy, with a dull purple border; the lower lip of 3 ovate-lanceolate, acuminate, spreading, somewhat feathery teeth, the upper one broad, concave, cloven with shorter connivent teeth. *Corolla* rose-coloured. *Petals* 5, with connate claws. *Vexillum* oval, glabrous, notched, the margins revolute. *Wings* adpressed, glabrous, with a callous tooth at the base. *Keel* much shorter than the wings, white, with a dark-red, truncate, glossy apex. *Stamens* 10, monadelphous. *Filaments* glabrous, those of the longer stamens clavate, of the shorter furnished with a hollow cup-shaped apex. *Anthers*

yellow, with parallel connate cells. *Ovarium* ovate, pointed, glabrous, monospermous, elevated on a filiform pedicel. *Style* slender, filiform, glabrous, longer than the stamens. *Stigma* terminal, white, minutely papillose. *Pod* semi-ovate, inclosed in the calyx, with a compressed winged border, crowned by the persistent style, one-seeded. *Seed* oval, ventricose, glabrous, attached by the centre. *Cotyledons* oval, flat, incumbent. *Radicle* cylindrical, obtuse, slightly curved, shorter than the cotyledons.

A native of the Peak of Teneriffe, whence it was introduced to our gardens about three years ago by Mr. Webb, after whom the species has been named, and who is now engaged in preparing for publication a Flora of the Canary Islands, for which he has been collecting materials for some years.

The present plant comes so very near to *A. Vulneraria*, that we can scarcely believe it to be more than a variety of that species, differing solely in its more copious silky pubescence. It will be found to thrive in any light sandy soil, and is well suited to ornament rockwork.

Our drawing was taken from plants which flowered in Mrs. Marryat's garden at Wimbledon, in the summer of last year.

The generic name is compounded of *ανθος*, a flower, and *ιουλος* a beard, and alludes to the shaggy calyx. *D. Don.*

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1. Vexillum. 2. Keel. 3. Wing. 4. Organs of reproduction.

1
2

PHLÓX stolonifera; *var.* crassifòlia.

Fleshy-leaved creeping Phlox.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. POLEMONIACEÆ. *D. Don in edinb. phil. journ.* 1822. *p.* 56.
PHLOX. Suprà fol. 7.

P. *stolonifera*, stolonibus repentibus, foliis spathulato-obovatis. *Sims in bot. mag. t.* 563. *Ait. hort. kew. ed.* 2. *v.* 1. *p.* 326. *Pursh fl. amer.* 1. *p.* 150.
P. reptans. *Mich. amer.* 1. *p.* 145. *Vent. malm. t.* 107. *Rœm. et Schult. syst.* 4. *p.* 362. *Spreng. syst.* 1. *p.* 624.
β. *crassifolia*, major; foliis crassioribus, floribus saturatiùs coloratis.
Phlox crassifolia. *Lodd. bot. cab. t.* 1596.

Plant creeping. *Shoots* procumbent, filiform, pale purple, clothed with soft jointed hairs, 3 inches long. *Flowering stems* erect, 4 inches high, filiform, clothed with soft hairs. *Leaves* stalked, broadly spathulate, mucronulate, an inch long, half an inch wide, flat, rather succulent, margin and midrib fringed with soft hairs; those of the stem oblong, blunt, faintly 3-nerved. *Footstalks* channelled, fringed. *Corymbs* few-flowered. *Peduncles* filiform, half an inch long, copiously clothed with glandular hairs. *Calyx* as long as the peduncles, deeply 5-partite, the segments lanceolate, acuminate, erect, connivent, the border narrow, scariose and white. *Corolla* salver-shaped, tube dark purple, twice the length of the calyx, sparingly clothed with glandular hairs; limb spreading, purple, with plain, rounded, slightly crenulate segments. *Stamens* 5, inclosed, very unequal. *Filaments* slender, capillary, glabrous, white, adherent to the tube. *Anthers* oblong, obtuse, orange, incumbent, with two parallel, connate cells, opening lengthways. *Ovarium* triangular, acute, 3-celled, cells one-seeded. *Style* capillary, the apex project-

ing beyond the tube. *Stigmata* 3, short, semicylindrical, obtuse.

This very pretty dwarf *Phlox* was introduced from North America in 1825, and has been received into the garden Catalogues as a species; but although we have in vain looked for characters to distinguish it from *P. stolonifera* it is nevertheless more worthy of the attention of the florist from the larger size and much richer hue of its blossoms. The leaves are also broader and of a deeper green.

It is perfectly hardy, and is easily multiplied by division. It should be planted in a mixture of peat and loam, and is well fitted for the front of a flower border, or to ornament rockwork, where its trailing habit enables it to accommodate itself.

Our drawing was taken at the Botanic Garden, Chelsea, in the beginning of May.

For the meaning of the generic name see fol. 7. *D. Don.*

1. Tube of the corolla laid open to shew the insertion of the stamens.
2. Calyx with the pistil.

Pub by J. Ridgway No. 1 Piccadilly Jany 1. 1835

SYMPHYTUM caucasicum.

Caucasian Comfrey.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. BORAGINEÆ. *Juss. gen. p.* 128.
Trib. 2. *SYMPHYTEÆ. D. Don in edinb. phil. journ. October,* 1832.
SYMPHYTUM. Calyx 5-divisus. *Corolla* infundibuliformis, fauce ventricosa: *limbo* subcoarctato, 5-dentato. *Appendices* 5, subulatæ, conniventes, staminibus alternæ.
Herbæ (europææ) *perennes, robustæ.* Folia *basi plerumque decurrentia.* Racemi *dichotomi, multiflori, ebracteati, demùm diffusi, subcorymbosi, terminales v. axillares.*

S. *caucasicum,* foliis ovato-lanceolatis acutis basi decurrentibus, calycibus tubulosis 5-dentatis pedicellorum longitudine.
Symphytum caucasicum. *Marsch. à Bieb. fl. taur. cauc.* 1. *p.* 128. *suppl. p.* 128. *Rœm. et Schult. syst.* 4. *p.* 64. *Spreng. syst.* 1. *p.* 563. *Graham in bot. mag. t.* 3188.

Stems erect, angular, branched, scarcely 2 feet high, and clothed like the rest of the plant with recumbent bristly hairs. *Leaves* ovate-lanceolate, acute, wrinkled, entire, from 3 to 7 inches long; the radical ones on long, simple, channelled footstalks; those of the stem sessile, and unequally decurrent at the base. *Racemes* forked, many flowered, furnished at the base with a single leafy bracte. *Pedicels* angular, bristly, about 3 lines long. *Calyx* tubular, five-angled, ribbed, as long as the pedicels, with 5, ovate, blunt, connivent teeth. *Corolla* funnel-shaped, twice longer than the calyx, before expansion of a rich pink, afterwards changing to an azure blue, the mouth ventricose, with 5, shallow, rounded, revolute lobes. *Filaments* glabrous, slightly compressed, blue. *Anthers* cream-coloured, as long as the filaments, composed of two distinct parallel cells, opening lengthways. *Appendages* ligulate, blunt, papillose, longer than the stamens. *Style* longer than the corolla. *Stigma* small, capitate.

This is a highly ornamental plant, having the brilliant blossoms of *Symphytum asperrimum* united to the more delicate habit of *S. orientale*, between which one might imagine it to be a spontaneous hybrid, so completely does it combine the characters of these two species.

It is found abundantly in moist shady places on the banks of the River Terek between Mosdok and Kisljar, and on the borders of woods throughout the greater part of the northern promontory of Caucasus, flowering in May and June.

From its dwarf habit and the beauty of its flowers it is admirably adapted to ornament front borders, for which purpose the large and coarse habit of *S. asperrimum* renders it unsuited.

Drawn in the beginning of May last at the Chelsea Botanic Garden, where the plant had been introduced from the Imperial Botanic Garden at St. Petersburg.

The generic name alludes to the marvellous consolidating virtues which the plant was formerly supposed to possess, and is derived from the Greek word *συμφυσις*, signifying union. *D. Don.*

1. Corolla laid open to shew the stamens and appendages. 2. Pistil.

Hart del.

Drawn by J. Ridgway 169 Piccadilly July 1 1835.

RHODÁNTHE Manglèsii.

Captain Mangles's Rhodanthe.

Linnean Class and Order. SYNGENESIA POLYGAMIA SUPERFLUA.
Natural Order. COMPOSITÆ. *Adans. fam.* 2. *p.* 103. Trib. GNAPHALIEÆ. *Less. comp. p.* 269.
RHODANTHE. Involucrum multiplici ordine polyphyllum, imbricatum, scariosum, coloratum, radiatum. *Rhachis* conica, glabra. *Flosculi disci* hermaphroditi, tubulosi, 5-dentati; *fœminei* uniseriales in ambitu, infundibuliformes, 5-dentati. *Filamenta* glabra. *Antheræ* basi bisetæ. *Styli rami* brevissimè appendiculati. *Achenia* compresso-tetragona, sericeo-villosa. *Pappi radiis* uniserialibus, plumosis, infernè liberis.
Herba (australasica) *annua.* Folia *alterna, sessilia, integerrima.* Capitula *terminalia, pedunculata.* Involucrum *turbinatum, rubicundum.* D. Don Mss.

R. Manglesii.
Rhodanthe Manglesii. *Lindl. in bot. reg. t.* 1703.

Root fibrous, annual. *Stem* slender, filiform, wiry, glabrous and shining, from a span to a foot high, with wavy branches, pale green, slightly stained with purple. *Leaves* sessile, elliptical-oblong, mucronulate, entire, glabrous, glaucous, an inch long, veinless, finely dotted, the base adnate or decurrent. *Capitula* drooping, on slender capillary footstalks of 2 or 3 inches in length, which are furnished at the apex with many, adpressed, short, scariose scales. *Involucrum* turbinate, radiate; scales imbricated, cuneate, green, the appendages ovate-lanceolate, plaited, scariose, coloured, glossy, torn at the apex, outer ones white, inner ones of a bright pink, and double the length of the florets. *Rhachis* depressed, conical, glabrous, dotted, even. *Florets* yellow, the tube pale green, the female ones disposed in a single series in the circumference, funnel-shaped, 5-cleft, with lanceolate acute segments, those of the disk numerous, hermaphrodite, tubular, with an inflated 5-tooth limb, the teeth ovate acute, the tube filiform, longer than the faux. *Filaments* capillary, glabrous. *Anthers* united into a tube, furnished with two short bristles at the base, and at the apex with a very short ovate acute membranous appendage. *Style* slender, filiform, glabrous, the branches semicylindrical, revolute, terminated by a very short, dilated, truncate,

papillose appendage. *Achenia* cuneate, four-sided, compressed, thickly clothed with adpressed silky hairs. *Pappus* white, the rays elegantly feathery, arranged in a single series, compressed and dilated below, cohering at the base only.

This very elegant everlasting is a native of Swan River, and was introduced in 1833, by Sir James Stirling, the Governor of that Colony, who presented the seeds to Mr. Mangles, in whose collection at Whitmore Lodge, Berkshire, the plant blossomed in the summer of last year. The plant whence our drawing was taken was obligingly sent us by Mr. Mangles in April last.

The genus is very nearly related to *Helichrysum*, from the normal group of which it is only distinguished by the presence of female florets, and by its feathery pappus. Indeed that genus as constituted by Lessing would include *Rhodanthe*.

We know not whether the plant has been tried in the open border, but we doubt not of its being found to succeed well treated after the manner of other tender annuals. Mr. Mackay, the gardener at Whitmore Lodge, has favoured us with the following interesting particulars respecting its introduction and culture.

"The seeds of *Rhodanthe Manglesii* were presented to Robert Mangles, Esq., of Whitmore Lodge, by Sir James Stirling in 1833, and part of them which were sown on a gentle heat, soon germinated and flowered the following summer. The plants had been confined in too small pots (sixties) and grew with less vigour, and with proportionably small and scantier blooms than when treated with richer mould and repeated shiftings, a plan I adopted with seedlings raised the following September from the remainder of the imported seeds. One of these was exhibited at the May meeting of the Horticultural Society, measuring from eighteen inches to two feet in height, and covered with hundreds of open flowers, and unexpanded rosy buds. It remained in flower nearly three months, which is not the case with plants raised from spring sowing.

"If kept through the winter in a light and airy part of the greenhouse they will not fail to do well, and will force tolerably well if placed in the stove in the beginning of February, flowering freely about the end of March.

"So soon as the greatest part of the flowers are expanded the flower stems and branches assume a singularly stiff and wiry character."

The generic name is compounded of ροδον, a rose, and ανθος, a flower, and alludes to the rosy heads. *D. Don.*

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1. Female floret. 2. Male floret. 3. Stamens. 4. Stamen magnified. 5. Ovarium with the pappus.

1

[illegible] Pub. by C. Ridgway, 169, Piccadilly, June 1, 1835

PRÍMULA ciliàta; *var.* purpuràta.

Purple-flowered fringed Auricula.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. PRIMULACEÆ. *Brown prodr.* 1. *p.* 427.
PRIMULA. Suprà fol. 5.

P. *ciliata*, foliis obovato-cuneiformibus grossè crenato-serratis villosulis subviscosis opacis, scapo angulato 2-5-floro, calycibus campanulatis tubo ferè triplò brevioribus. *Lehm. monogr. p.* 79.
Primula ciliata. *Schrank. primit. fl. salisb. no.* 186. *Braun. fl. salisb.* 1. *p.* 162. *Lam. ill. p.* 430. *Ait. hort. kew. ed.* 1. *vol.* 1. *p.* 194. (excl. synon.) *Rœm. et Schult. syst.* 4. *p.* 148. *Sweet suprà t.* 123.
P. villosa. *Suter fl. helv.* 1. *p.* 112. (excl. synon.) *Schleich. cent.* 1. *pl. rar. no.* 16.
P. foliis ciliatis dentatis, scapo paucifloro. *Hall. helv. no.* 613?
β. *purpurata*, umbellâ multiflorâ, floribus intensè purpureis.

The whole plant clothed with minute glandular pubescence. *Scapes* about 3 inches high, filiform. *Leaves* cuneately spathulate, spreading, fleshy, and leathery, copiously furnished with large, often unequal, angular, and rather blunt teeth, an inch and a half to 2 inches long, and an inch in breadth, marked above with rather elevated ribs. *Petioles* half an inch long, flat, 4 lines broad. *Umbels* of from 10 to 15 flowers. *Pedicels* slender, filiform, copiously pubescent, half an inch long. *Bractes* very short, ovate, obtuse, persistent. *Calyx* campanulate, copiously clothed with glandular pubescence, with ovate, acute, erect teeth, rather shorter than the tube. *Corolla* of the richest purple; tube glabrous, double the length of the calyx, swollen above, mouth and interior of the tube of a pale sulphur colour; limb deeply 5-lobed, about the length of the tube, the segments obcordate, with rounded lobes. *Stamens* 5, inclosed, inserted below the mouth. *Filaments* white, very short,

stout, compressed, glabrous, suddenly contracted at the top. *Anthers* linear, blunt, yellow, thrice longer than the filaments. *Pistillum* shorter than the calyx. *Ovarium* globose. *Style* filiform, about the length of the ovarium. *Stigma* large, capitate.

A flowering plant of this very pretty variety was communicated in April last, by Mr. Edward Leeds, Nurseryman, Manchester, who informs us that it is a hybrid production, raised in that neighbourhood from one of the numerous varieties of *Primula Auricula* and *P. villosa*, or rather *ciliata*. It is an extremely showy plant from the brilliancy of its blossoms, which it produces in great profusion. The tint of colouring it is almost impossible to imitate. The plant is of very easy culture, and requires the same treatment as the rest of the genus.

The generic name is already explained at fol. 5. *D. Don.*

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1. Calyx.

PÆÒNIA Moùtan; *var.* punicea.

Red-flowered Tree Pæony.

Linnean Class and Order. POLYANDRIA DIGYNIA.
Natural Order. RANUNCULACEÆ. *Juss. gen. p.* 231.
PÆONIA. Suprà fol. 238.

P. *Moutan,* caule fruticoso, foliolis summo apice trifidis, germinibus tomentosis urceolo membranaceo inclusis. *Anderson in linn. trans.* 12. *p.* 252.
Pæonia Moutan. *Dryander in hort. kew. ed.* 2. *v.* 3. *p.* 315. *Sims in bot. mag. t.* 1154. *Smith in Rees's cyclop. in loco. Bonpl. nav. p.* 1. *t.* 1. *Decand. syst.* 1. *p.* 387. *prodr.* 1. *p.* 65.
P. suffruticosa. *Andr. bot. rep. t.* 373.
P. officinalis. *Thunb. fl. jap. p.* 230. (ex parte.)
ε. punicea, flore multiplici puniceo.

Stem woody at the base. *Branches* angular, glabrous, green, rather thicker than a writing quill. *Leaves* stalked, ternate; leaflets broadly cuneate, 4 or 5 inches long, 3-lobed, the lobes again acutely 3-lobed, green and shining above, paler and glaucous beneath, with prominent ribs. *Footstalks* 3 inches long, stout, nearly cylindrical. *Bractes* lanceolate, acute, leafy, longer than the calyx. *Calyx* of 5 broadly ovate, pointed, concave, leathery segments, of a green colour, stained with purple. *Petals* carmine, concave, cut, crumpled and waved at the edges. *Filaments* numerous, subulate, red. *Anthers* linear, obtuse, yellow of two connate cells. *Ovaria* 5, ventricose, copiously downy, surrounded by the elevated, lobed, dark red, cupshaped disk.

Communicated in May last by Sir Abraham Hume, Bart., from his collection at Wormleybury. It is most probably a seedling from *Anneslei,* as it agrees with that variety in habit, and in the uniform rich colour of its petals.

The flowers, however, are larger than in that variety, with the petals more numerous, more deeply cut, and of the colour of carmine.

The plant requires the same culture and treatment as the other varieties from *papaveracea*.

The generic name is already explained at fol. 238. *D. Don.*

1. Diminished outline of a lower leaf.

Hart. del. ... by ... Piccadilly Aug 1. 18..

VIOLA cucullata.

Hollow-leaved Violet.

Linnean Class and Order. PENTANDRIA MONOGYNIA.
Natural Order. VIOLARIEÆ. *Decand. prodr.* 1. *p.* 287.
VIOLA. Suprà fol. 126.
* *Staminibus approximatis, stylo basi attenuato, stigmate triangulari rostrato, toro planiusculo, capsulâ trigonâ. Acaules, radice incrassatâ.*

V. *cucullata,* acaulis; foliis cordatis acutiusculis glabris crenatis basi cucullatis, petalis lateralibus barbatis; infimo glabro, stigmate marginato.
Viola cucullata. *Soland. in hort. kew.* 3. *p.* 288. *ed.* 2. *v.* 2. *p.* 44. *Willd. sp. pl.* 1. *p.* 1162. *Pursh fl. amer.* 1. *p.* 173. *Nutt. gen.* 1. *p.* 148. *Sims in bot. mag.* 1795. *Rœm. et Schult.* 5. *p.* 355. *Elliott carol.* 1. *p.* 298. *G. Don. gen. syst. gard. & bot.* 1. *p.* 321.
V. cordata. *Walt. carol. p.* 219.

Plant perennial, tufted, stemless. *Root* thick and fleshy, sending forth numerous white fibres. *Scapes* solitary, one-flowered, resembling the petioles, but shorter and slenderer, slightly angular, channelled on one side. *Leaves* cordate, rather acute, equally crenate, glabrous, or slightly pubescent, dark green above, rather paler beneath, wrinkled and veiny, about two inches long, cucullate at the base, with involute crenated lobes. *Footstalks* 5 or 6 inches long, almost filiform, channelled above, pale green, streaked and spotted with purple. *Sepals* ovate-oblong, rather blunt, 3 or 5-nerved, glabrous, shortly produced at the base, of a livid hue, with a narrow, membranous, white, ciliated border, the outer pair broader. *Petals* 5, broadly obovate, of a dark blue, with deeper coloured veins, the two lateral ones white and streaked at the base of the lamina, and furnished just above the claws with a copious white beard composed of erect, club-shaped hairs; lower one rather wedge-shaped,

blunt, entire, glabrous, the lower half white and streaked with dark blue veins, the claw wider, hollow, spurred behind, and finely pubescent within; claws short, white, and channelled, of a thicker consistence than the rest of the petals. *Spur* very short, saccate, blunt, ventricose, livid purple. *Stamens* 5, connate. *Filaments* very short, stout, compressed, glabrous, pale green. *Anthers* 5 times longer than the filaments, cream coloured, the crest oblong, obtuse, cucullate, membranous, orange, about as long as the anthers, the edges involute. *Ovarium* oblong-conical, glabrous. *Style* clavate, nearly as long as the ovarium. *Stigma* ascending, thick, triangular, marginate, the lower angle rather more prominent and terminating in a foramen.

This very pretty violet is common throughout a great portion of the United States of North America, delighting in wet places, and in a clayey soil. It was introduced to our gardens in 1772, and was first described by Solander in the *Hortus Kewensis*. It is a hardy perennial of very easy culture, being readily increased either by parting the roots or by seeds. Our drawing was taken at Mr. Knight's, King's Road, Chelsea, in May last.

The V. *papilionacea* of Pursh closely resembles this species, and indeed by Nuttall and several other American Botanists it is regarded as a mere variety of it, an opinion which, from an attentive examination of several authentic specimens, I am not disposed to adopt, as I find in them the lower petal constantly strongly bearded, and the margin of the stigma more prominent. There are some others, such as *obliqua* and *sororia* whose characters are less marked, and which may very possibly prove to be only varieties of the present.

See fol. 126, for the meaning of the generic name.

D. Don.

1. Lateral petal. 2. and 3. Anthers. 4. Pistil.

1
2

ESCHSCHÓLZIA crocea.

Saffron-coloured Californian Poppy.

Linnean Class and Order. POLYANDRIA MONOGYNIA.
Natural Order. PAPAVERACEÆ. *Juss. gen. p.* 235.
ESCHSCHOLZIA. *Calyx* pedunculi apici disciformi impositus, calyptriformis, e sepalis 2 connatis. *Petala* 4. *Stamina* indefinita, basibus petalorum adnata. *Antheræ* lineares, elongatæ, posticæ. *Stigmata* 4, filiformia; *alternis* multò minoribus, placentis oppositis. *Capsula* siliquiformis, 1-locularis, 2-valvis, polysperma: *valvulis* margine seminiferis. *Semina* obovata.
Herbæ (californicæ) *succo flavo scatentes, foliis triternatim multipartitis, floribus amplis speciosis aureis.*

E. *crocea*, caule ramoso folioso, foliorum segmentis linearibus, pedunculi cyatho infundibuliformi: limbo maximo dilatato, calyce longe acuminato. *Bentham in hort. trans. v.* 1. *n. s. p.* 406. *Lindl. in bot. reg. t.* 1677.

Stems procumbent, branched, cylindrical, a span long, pale green, marked with longitudinal white lines. *Leaves* alternate, stalked, finely triternately divided, glaucous, glabrous, with cuneately linear, pointed segments, the points red. *Flowers* solitary, axillary, or terminal. *Peduncles* cylindrical, furrowed, marked with white ribs, terminated by a funnel-shaped apex, having a broad, orbicular, crenately lobed, spreading, fleshy, slightly plaited border, which is at first of a green colour, but afterwards changing to pale purple. *Calyx* about an inch long, fusiform, blunt, striated. *Petals* broadly cuneate, nerved, repandly crenate, and slightly waved at the outer edge, an inch and a half long, of a brilliant orange above, paler beneath, glossy on both sides. *Stamens* about 25, unequal, attached to the base of the petals. *Filaments* compressed, glabrous, shining, the upper half of a dark purple. *Anthers* adnate, double

the length of the filaments, linear, slightly mucronulate, the cells parallel, connate, opening outwardly lengthways, attached to a convex semicylindrical connectivum. *Ovarium* conical, oblong, fluted, glaucous, one-celled, closely surrounded at the base by the inner elevated crenated white edge of the disk. *Stigma* divided to the base into four long, awlshaped, slightly twisted, minutely papillose segments, the pair right and left are nearly double the size of the other two. *Placentæ* 2, perpendicular to the smaller stigmas. *Ovules* crowded, obovate.

Our gardens are indebted to the indefatigable zeal of our lamented friend, Mr. Douglas, for many of their most brilliant ornaments, amongst which must be reckoned the present splendid new species of *Eschscholzia*, which was introduced in 1833 from seeds transmitted by him to the Horticultural Society. It is very nearly related to *E. californica*, and is chiefly distinguished, as Mr. Bentham well observes, by the widely expanded apex of the peduncle, and by the longer point of the calyx. The flowers are of a rich orange, and certainly not inferior in beauty to *californica*. It is like that species a hardy biennial, and its culture and propagation are the same. Our drawing was taken at the Nursery of Messieurs Allen and Rogers at Battersea.

The genus was named by Chamisso after his fellow traveller, Dr. Frederick Elsholtz, or as the Russians write it Eschscholz (an orthography which he afterwards adopted himself), who accompanied Kotzebue in the Russian voyage of discovery, in the capacity of Physician and Naturalist. He was afterwards appointed Professor of Zoology, in the University of Dorpat. *D. Don.*

1. Petal with the stamens attached.
2. Pistil with the floral disk, and a portion of the peduncle.

1
2

CRATÆGUS mexicana.

Mexican Hawthorn.

Linnean Class and Order. ICOSANDRIA DIGYNIA.
Natural Order. POMACEÆ. *Rich. anal. fr. p.* 33. *Lindl. in linn. trans.* 13. *p.* 93.
CRATÆGUS. *Calyx* 5-dentatus. *Petala* patentia, orbiculata. *Ovarium,* 2-5-loculare. *Styli* glabri. *Pomum* carnosum, oblongum, dentibus calycinis v. disco clausum, putamine osseo.
Frutices (Americæ septentrionalis, Europæ, Asiæ et Africæ borealis) *spinosi.* Folia *angulata v. dentata, nunc sempervirentia.* Cymæ *terminales, plerumque multifloræ, patentes.* Bracteæ *subulatæ, deciduæ.* Lindl. in l. c. 13. p. 105.

C. *mexicana,* digyna, inermis; foliis cuneato-oblongis duplicato-serratis subtùs villosis, corymbis multifloris hirsutis, dentibus calycinis lanceolatis acutis integerrimis recurvatis, pomis globosis punctatis 5-spermis.

This forms a small unarmed bushy tree of 8 or 10 feet high, and is apparently evergreen, with round, glabrous, olive-coloured branches. *Leaves* stalked, oblong, or cuneately lanceolate, pointed, the upper third unequally and often doubly serrated, with rather blunt teeth, the rest of the margin quite entire and even, attenuated at the base, 2 or 3 inches long, and about an inch in breadth; upper surface light green, veiny and wrinkled, finally becoming glabrous, underneath copiously clothed, especially in the younger ones, with soft, adpressed white hairs. *Footstalks* very short, channelled above, and bordered with a narrow leafy margin. *Stipules* stalked, lunate, acuminate, serrated with unequal glandular teeth. *Corymbs* terminal, many-flowered. *Peduncles* cylindrical, copiously hairy. *Bractes* linear, acute, adpressed, furnished at the margin with numerous, minute, glandular teeth. *Calyx* turbinate, densely

hairy, the teeth lanceolate, acute, keeled, entire, recurved, afterwards becoming erect and connivent, fringed with minute glands. *Petals* scarcely longer than the calycine teeth, nearly orbicular, concave, crumpled, pure white, veiny, rather narrowed at the base. *Stamens* varying from 10 to 15, arranged in a double series, inserted into the margin of the red, concave, lobed, plaited, fleshy disk. *Filaments* awl-shaped, glabrous, white, dilated at the base. *Anthers* pale pink, peltate, composed of two parallel connate cells. *Styles* 2, or rarely 4, nearly filiform, slightly compressed, shorter than the stamens, pale yellow, marked with a shallow line on their inner surface. *Stigma* yellow, peltate, viscid. *Ovarium* 5-celled, with solitary ovules. *Pome* about the size of the common Medlar, globose, slightly attenuated at the base, glabrous, green, afterwards when ripe changing to pale yellow, dotted exteriorly with brown dots, enclosing 3 or 5, very thick, hard and bony nuts, having a deep furrow behind; flesh copious, pale green, firm, and of a disagreeable bitter taste, with the bundles of vessels very conspicuous, green, imbedded in it.

This new and very distinct species of Hawthorn will form a valuable addition to our hardy shrubs, producing an abundance of white blossoms, which are succeeded by fruit of unusual size, and of the colour of the golden pippin apple.

It is a native of the table lands of Mexico, whence it was introduced from seeds received by Mr. Lambert in 1829. The tree flowered for the first time in the garden at Boyton House, Wilts, in the summer of last year, and ripened its fruit in the following November.

It is found to be quite hardy, and it may be increased by budding on stocks of the common Hawthorn.

The generic name is derived from κρατος, strength, and alludes to the extreme hardness of the wood of some species of the genus. *D. Don.*

1. Section of the fruit. 2. Transverse section of a nut.

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